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RESEARCH ARTICLE

Intergenerational Occupational Mobility in Rural India: Evidence from Ten Villages

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Abstract: Given the relatively limited employment opportunities available within villages, the main vehicle for intergenerational occupational mobility for people in rural India is migration to urban or semi-urban areas. At the same time, since 69 per cent of India's population still lives in villages, it is important to examine and understand the level of intergenerational occupational mobility within villages themselves. This paper examines intergenerational occupational mobility among rural males in India using data from household surveys in ten villages in different agro-ecological regions of the country. The mobility matrix approach is applied to two father-son pairs: heads of households and their fathers and heads of households and co-resident adult sons. A four-fold occupational classification is used: big farmers, small farmers, skilled workers and persons engaged in business or salaried employment, and lastly, rural manual workers. The main finding of the paper is of low intergenerational occupational mobility in all ten villages, particularly among big farmers and rural manual workers. Intergenerational occupational immobility was higher among manual workers from Scheduled Castes than manual workers from Other Castes. Odds ratios showed that downward mobility from any occupation to that of manual worker was higher for Scheduled Caste men than men of Other Castes. The data strongly support the view that Scheduled Caste men who remain in villages are unable to move out of rural manual employment.

Keywords: Intergenerational mobility, occupation, caste, three-generational mobility, village, India, occupational mobility, mobility matrix, immobility.

Introduction

There are very few studies of occupational mobility in India, mainly because there are very few sources of data on the subject. This paper examines intergenerational occupational mobility among rural males in India, using data collected from

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10 villages located in different agro-ecological regions in five States of the country. These data were collected by the Foundation for Agrarian Studies as part of the Project on Agrarian Relations in India (PARI).

There are many studies, covering developed and less-developed countries, that have documented the persistence of economic and social inequalities across generations based on outcome indicators such as income, earnings, occupation, and level of education.[1] In the literature on social mobility, occupation is considered a good indicator of social status, incomes, and living standards (see Weeden 2002; Goldthorpe and McKnight 2006; Giddens 2009; Kunst and Roskam 2010; and Lambert and Bihagen 2011). A low degree of intergenerational occupational mobility implies that the advantages and disadvantages inherent in the occupational status of one generation are transmitted to the next generation. A situation of low mobility across generations may be favourable for families that are in fortunate socio-economic circumstances, but in the case of families that are less fortunate, low mobility often entails "social exclusion, material and human capital impoverishment, and restrictions on the opportunities and expectations that would otherwise widen their capability to make choices" (Hancock *et al.* 2007, p. 43).

There are further reasons why intergenerational occupational mobility in rural India should be of particular interest to social scientists and policy makers. Rural India is marked by extreme forms of social and economic inequality, and in particular by a variety of forms of caste discrimination. The study of occupational mobility can help identify the extent to which the process of economic development and modernisation has broken traditional hierarchies and caste and class barriers to occupational choice.

Given the relatively limited employment opportunities available within villages, the main vehicle for intergenerational occupational mobility in India is migration to urban or semi-urban areas.[2] At the same time, since 69 per cent of India's population still lives in villages, it is important to examine and understand the level of intergenerational occupational mobility within villages themselves.

Studies of Intergenerational Occupational Mobility in India

Because of a lack of panel data and of surveys that capture multi-generational information, the evidence on intergenerational occupational mobility is scanty in India.

Prior to the 1980s, sociologists studied intergenerational mobility in villages in order to examine the role of caste in influencing the choice of occupation of individuals. One

[1] For reviews of the multi-country literature, see Solon (1999, 2002); Bjorklund and Jantti (2008); Black and Devereux (2011); and Blanden (2013).

[2] Some scholars have argued, for instance, that migration to urban areas is the only way that Dalit households can improve their social and economic situation (Kapur *et al.* 2010).

argument that emerged was that while modernisation allowed everyone in a village to choose his/her occupation, in practice, traditional hierarchies were reinforced with respect to individual occupations (Sharma 1970). Given the differential capacities of various sections of rural society to gain access to modern occupations, "prestigious secular occupations [were] being virtually monopolised by the ex-privileged castes," while leaving the oppressed strata of the village society once again at the less-privileged end of the occupational hierarchy (*ibid*., p.1539).

Turning to studies by economists, Ramachandran (1990) analysed occupational mobility in terms of differentiation among peasants and among other socio-economic classes of rural society. In his study of Gokilapuram village in south-western Tamil Nadu, Ramachandran found that "the dispossession of the peasantry, eviction of tenants, erosion of demand for the services of village artisans and the loss of traditional rural non-agricultural occupations" were among the major reasons for the working people becoming agricultural and other manual workers over time (*ibid*., p 100).[3] Swaminathan (1991), in a study based on panel data collected from households in the same village, found that "agricultural modernisation within the existing structural framework has provided restricted opportunities for occupational change [but] has not mitigated the extreme polarisation in the distribution of land" (Swaminathan 1991, p. 261). Evidence from Palanpur village in western Uttar Pradesh showed that the agricultural labourers experienced very little occupational mobility (Dreze, Lanjouw, and Stern 1992).

Kumar *et al.* (2002a, 2002b) examined intergenerational occupational mobility in India using National Election Study data from 1971 and 1996. They found that a high level of inequality between classes persisted with respect to opportunities for mobility.[4] Surveys undertaken for identifying patterns of voter behaviour in elections may not, however, pay detailed attention to socio-economic variables, and hence the quality of information in these surveys on occupation and land ownership may not be reliable.

More recently, Motiram and Singh (2012) used data from the India Human Development Survey, 2005, jointly conducted by the University of Maryland and the National Council for Applied Economic Research (NCAER), to study intergenerational occupational mobility. This study showed that a substantial proportion of sons of low-skilled and low-paid workers remained in the same occupations as their fathers at the all-India level, for urban and rural areas combined.

The major official source of data on employment in India, that is, surveys conducted by the National Sample Survey Organisation (NSSO), does not include

[3] Djurfeldt *et al.* (2008) studied social mobility over 25 years in six villages in the former Tiruchirapalli district of Tamil Nadu. They attributed the changes in social mobility to local industrialisation and social policy.
[4] For other studies based on election surveys, see Nijhawan (1969) and Vaid (2012).

Table 1 *Aggregate mobility rates for co-resident fathers and sons, by social group, 1983 to 2009–10*

Survey year	All	Scheduled Castes/Scheduled Tribes	Other Castes
1983	24.1	23.6	24.2
1987–88	27.4	26.4	27.8
1993–94	26.9	26.4	27.0
1999–2000	27.7	26.5	28.1
2004–05	33.2	32.6	33.5
2009–10	35.2	34.0	35.7

Note: The aggregate mobility rate measures the proportion of individuals in the off-diagonal cells of a mobility table.
Source: Reddy (2014), computed from NSSO's Employment and Unemployment Surveys, 1983, 1987, 1993–94, 1999–2000, 2004–05, 2009–10.

any information on fathers or parents of current heads of households. A restricted sample comprising co-resident fathers and (adult) sons can be constructed from various rounds of the NSSO's Employment and Unemployment Survey. Following this method, Majumder (2010) used data from the 50th (1993–4) and 61st (2004–5) rounds of the Employment and Unemployment Survey to show that intergenerational mobility was significantly lower among the "excluded classes" (Scheduled Castes, Scheduled Tribes, and Other Backward Classes taken together) than among the "advanced" classes. He found that occupational mobility was lower than mobility with respect to educational outcomes, and argued that that could be a sign of discrimination in the labour market. Based on the NSSO's Employment and Unemployment Surveys from 1983 to 2004–5, Hnatkovska, Lahiri, and Paul (2013) observed that changes in intergenerational mobility rates were similar among Scheduled Castes and Scheduled Tribes, and Other Castes (non-Scheduled Castes and non-Scheduled Tribes). There are, however, methodological problems in the latter study, including that of conflating three generations and of combining farmers with agricultural workers in a single occupational category (see Reddy 2014).

Reddy (2014) used data from six rounds of the Employment and Unemployment Survey to examine changes in intergenerational occupational mobility over the last three decades, that is, from 1983 to 2009–10, among co-resident father–son pairs in rural India. He classified occupations into four groups: white-collar workers, skilled workers, farmers, and unskilled workers. He found, first, that absolute mobility rates were low but rose over the reference period (Table 1). Secondly, in each round of the Employment and Unemployment Survey, absolute intergenerational occupational mobility rates were lower for Scheduled Caste and Scheduled Tribe males than for Other Caste (non-Scheduled Caste and non-Scheduled Tribe) males. Thirdly, sons of unskilled workers and farmers experienced greater immobility than sons of white-collar workers and skilled workers.

Data and Methodology

Features of the Data Set

The data used in this paper come from 10 villages surveyed between 2005 and 2010 by the Foundation for Agrarian Studies as part of the Project on Agrarian Relations in India (PARI).[5] A census-type survey of households was conducted in each village, and the total number of households covered was over 2,500. The villages differ in agro-ecological features as well as in socio-economic characteristics. Table 2 provides a brief description of the 10 study villages. The size and caste composition of the populations of the villages is shown in Table 3.

There are two distinguishing features of this data set that are relevant to this study. First, the PARI survey data provide detailed information on the occupation and a range of other items of information about the current head of household, as well as on the occupation and extent of land owned by the father of the head of the household. This enables us to examine aspects of occupational differences (if any) between current male heads of households and their fathers. As most women leave their natal villages at marriage, we have only examined data on males in this paper.

The paper uses data on (a) current heads of households and their fathers; (b) heads of households and co-resident adult sons; (c) both groups combined (all men); and (d) a three-generational data set comprising heads of households, their fathers and co-resident sons. For each study village, we have two sets of father-son pairs and one three-generational set. The first set of father–son pairs consisted of all male heads of households and their fathers (P_1). The second set of father–son pairs consisted of all heads of households and their co-resident adult sons (P_2).[6] The two groups represented broadly two different age cohorts. The mean age of sons (in effect, the head of household in the first group) was around 45 years, whereas the mean age of sons in the second group was around 23 years (Table 4). The first set of father–son pairs (P_1) covered all households in the village (as it is based on census surveys), while the second group (P_2) consisted only of those households with male heads of households and their adult sons living together. As can be seen in Table 4, P_1 (heads of households and fathers) comprised 82 to 97 per cent of the surveyed households (the excluded numbers were female-headed households); P_2 (heads of households and co-resident sons), however, comprised only around 35 to 50 per cent of the surveyed households.[7] The exceptions were the two villages in Andhra Pradesh and one village in Telangana, where the number of heads of households and co-resident sons was much lower than elsewhere.

[5] For further descriptions and discussion of each study village, see http://www.fas.org.in/pages.asp?menuid=16.
[6] The criterion for inclusion in our data set was residence in the village and not place of work. Persons may reside in the village and commute to another rural or urban location for work.
[7] In the NSS restricted sample of 2009–10, fathers and co-resident sons comprised around 30 per cent of the total sample (Reddy 2014).

Table 2 *Description of study villages: name, taluk, district, State, and agro-ecological zone*

	Village name	Taluk/Mandal/Tehsil	District	State	Agro-ecological zone
1	Ananthavaram	Kollur	Guntur	Andhra Pradesh	East Coast Plains and Hills
2	Bukkacherla	Raptadu	Anantapur	Andhra Pradesh	Southern Plateau and Hills
3	Kothapalle	Thimmapur	Karimnagar	Telangana	Southern Plateau and Hills
4	Alabujanahalli	Maddur	Mandya	Karnataka	Southern Plateau and Hills
5	Siresandra	Kolar	Kolar	Karnataka	Southern Plateau and Hills
6	Zhapur	Gulbarga	Gulbarga	Karnataka	Southern Plateau and Hills
7	Harevli	Najibabad	Bijnor	Uttar Pradesh	Upper Gangetic Plains
8	Mahatwar	Rasra	Ballia	Uttar Pradesh	Middle Gangetic Plains
9	25F Gulabewala	Sri Ganganagar	Sri Ganganagar	Rajasthan	Trans-Gangetic Plains
10	Warwat Khanderao	Sangrampur	Buldhana	Maharashtra	Western Plateau and Hills

Source: Data archive, Foundation for Agrarian Studies.

Table 3 *Number of households, population, and share of Scheduled Castes in total population, study villages*

	Village name	District	Survey year	Number of households	Total population	Scheduled Castes as per cent of total population
1	Ananthavaram	Guntur	2005	669	2216	44.2
2	Bukkacherla	Anantapur	2005	292	1130	18.8
3	Kothapalle	Karimnagar	2005	373	1299	29.6
4	Alabujanahalli	Mandya	2009	249	1081	14.1
5	Siresandra	Kolar	2009	84	477	25.6
6	Zhapur	Gulbarga	2009	115	729	39.2
7	Harevli	Bijnor	2006	115	674	38.0
8	Mahatwar	Ballia	2006	159	1114	60.0
9	25F Gulabewala	Sri Ganganagar	2007	204	1132	44.0
10	Warwat Khanderao	Buldhana	2007	250	1142	8.7

Source: PARI (Project on Agrarian Relations in India) survey data.

Table 4 *Number of households and father–son pairs (P_1 and P_2), by study village*

Village	Number of households	Number of father and HoHpairs (P_1)	3 as per cent of 2	Average age of HoH	Number of HoH and co-resident son pairs (P_2)	6 as per cent of 2	Average age of co-resident son
1	2	3	4	5	6	7	8
Ananthavaram	669	546	81.6	48	172	25.7	24
Bukkacherla	292	250	85.6	45	75	25.7	24
Kothapalle	373	305	81.8	45	71	19.0	23
Alabujanahalli	248	231	93.1	47	107	43.1	29
Siresandra	81	79	97.5	47	41	50.6	27
Zhapur	113	104	92.0	47	55	48.7	25
Harevli	115	112	97.4	49	50	43.5	25
Mahatwar	159	141	88.7	48	57	35.8	27
25F Gulabewala	204	201	98.5	46	90	44.1	25
Warwat Khanderao	250	230	92.0	48	88	35.2	25

Note: HoH=head of household.
Source: PARI survey data.

Interpreting data on the P_2 group is clearly more difficult, as it is a restricted sample with no information on sons who have left the household altogether. The bias arising from focusing on co-resident sons and excluding sons who have left is not known.[8] Some sons who left the household may have experienced upward mobility. On the other hand, some sons who left their natal households may, for example, have formed nuclear households within the same village and may have become worse off (in terms of land ownership, for example) than when part of the parent household.

In short, the pattern of mobility observed among co-resident sons and fathers may be biased if co-habitation itself affects mobility, but the direction of bias is unclear. We shall return to this point when we discuss villages where the two groups (P_1 and P_2) show distinctly different patterns of mobility. Despite the limited coverage of the P_2 group, we use it for our analysis as (a) we are including all father–son pairs resident in the village, and (b) we are able to create a unique multigenerational data set comprising heads of households, their fathers, and their co-resident sons.

The second distinguishing feature of our study is that it clearly demarcates two categories of farmers or cultivators. We have classified rural occupations into four broad categories: (1) big/rich farmers; (2) small/poor farmers; (3) skilled workers/ salaried persons/persons engaged in business (henceforth skilled workers); and (4) rural manual workers. Other studies of occupational mobility in rural India (particularly studies based on NSS data) do not differentiate between classes of cultivators and rural workers.[9] Given the size of the cultivator population in rural India and the fact that cultivators are a heterogeneous group, combining wealthy capitalist farmers and penurious poor peasants in one category is clearly problematic.

A detailed and calibrated classification of cultivators belonging to the current generation is possible, but given that the information we have on the fathers of heads of households is less detailed than on the head of household himself, we have used a two-fold classification, namely rich/big farmers and small/poor farmers. This categorisation is based on the extent of land ownership. The exact cut-off for extent of land owned is based on the average land owned by capitalist farmers/rich peasants in each village; the criterion for division of farmers into big and small is the same.[10] The exact cut-off is not uniform across the villages, but varies according to the local agro-economic context.[11] Since each village is a separate unit of analysis, this non-uniformity in categorisation does not invalidate the analysis.

[8] The extent of out-migration from these villages remains to be studied, and at present, we are not able to examine the relation between the degree of out-migration and the mobility of those who remained in the village.
[9] In fact, as mentioned earlier, a major paper based on NSS data clubbed farmers with agricultural labourers. Even in studies based on village data, "self-employed in agriculture" is taken as a single occupational category and differentiation within this group is ignored (Asadullah 2006).
[10] We draw here upon the detailed analysis of classes undertaken for each PARI village See, for example, Ramachandran, Rawal, and Swaminathan (2010), for a detailed discussion of the identification of classes.
[11] For example, in a dry village like Bukkacherla in Anantapur, the cut-off for big farmers is 13 acres, whereas in Alabujanahalli in the Kaveri-irrigated region of south Karnataka, the cut-off is 6 acres.

In this paper, we have classified all individuals who are engaged either in skilled work or in regular salaried work - such as public sector jobs or relatively remunerative private sector jobs, or are self-employed or in other modern occupations - as skilled workers. We brought this somewhat heterogeneous group into a single category mainly because of the small numbers in each component occupational group.

The category of rural manual workers consists of individuals who are engaged in manual work, agricultural and non-agricultural. Manual workers in rural India today are engaged both in agricultural and non-agricultural tasks, and it is difficult to separate those who are exclusively agricultural workers from those who combine agricultural and non-agricultural work (see, for instance, Ramachandran 1990 and Ramachandran, Rawal, and Swaminathan 2010).[12]

Lastly, each village had some people engaged in small-scale self-employment and artisanal activity. As the numbers of such persons were small, we classified them on the basis of their secondary occupations in one of the four categories above. In most villages, the secondary occupation of such workers was reported to be agricultural work or manual work.

We have not attempted to order the four occupational categories in a socio-economic hierarchy. The two categories of big farmers and small farmers, based on our class analysis, are ordered. Of the four occupational categories, manual labour, which is viewed as the occupation of last resort in rural India, can be placed at the bottom of the socio-economic hierarchy. Even though the income of small farmers may be lower than that of manual workers in some cases, this categorisation indicates that manual labour is viewed as the least desirable of all occupations in rural areas. In our analysis of upward and downward mobility, therefore, we focus on the upward mobility of manual workers and downward mobility of persons belonging to other occupational categories to the category of manual workers.

Caveat

With the mechanisation of agriculture and better connections between rural and urban areas (and the general development of market relations), there has been a decline in the demand for products and services supplied by village artisans (Ramachandran 1990; Sharda 2005). In all 10 study villages, the number of artisans as a proportion of all workers in each generation was very small. For example, in Harevli village in western Uttar Pradesh, there were only two households engaged in artisanal or traditional service-related occupations. These included the households of a carpenter and a priest, but only in the former were both father and son in the same occupation.

[12] The nature and type of work done within the same occupational category may have changed substantially over the course of a generation. Our analysis here does not attempt to capture the changing nature of tasks within the category of rural manual work.

Further, in all the villages, the share of male workers in artisanal occupations was much lower among sons in father-son pairs than among fathers. For example, in Ananthavaram village in Guntur district in coastal Andhra Pradesh, in all 759 father-son pairs, 32 fathers were engaged in different artisanal occupations, but only 18 sons were also artisans. More importantly, in all 10 villages, only rarely did men take up artisanal work exclusively. In most cases, artisanal work or work at traditional caste callings was supplemented by agricultural or non-agricultural manual labour, either as a secondary or the main occupation. In short, our village data support the observation of a decline in village artisan and traditional occupations. However, given their small numbers and the fact that most sons in our father-son pairs were engaged in more than one occupation, we have not included artisans as a separate category in our mobility tables.

Methodology

As occupation is a categorical variable, we have used a matrix method to measure the extent of mobility in each village in aggregate, and by social group and age cohort.[13] A mobility matrix cross-classifies fathers' and sons' occupations in the rows and columns of the matrix. A father's occupational category is referred to as "origin," and a son's occupational category is referred to as "destination." The diagonal cells represent immobility across successive generations, that is, the percentage of sons who remained in the same occupation as their fathers. The off-diagonal cells represent mobility, either upward or downward.

To obtain an aggregate measure, we have calculated the absolute or gross mobility rate. Following Xie and Killewald (2013), let us denote f_{ij} as the observed frequency in the *i*th row ($i = 1,\ldots, N$) and in the *j*th column ($j = 1,\ldots, N$) of a mobility table with N rows and N columns. The simple measure of aggregate mobility, or the absolute mobility rate, measures the proportion of individuals who fall in the off-diagonal cells of a mobility table.

The absolute mobility rate, M, is defined as:

$$M = 1 - \frac{\left(\sum_{i=1}^{N} f_{ii}\right)}{f_{++}} \qquad (1)$$

Where, $\sum_{i=1}^{N} f_{ii}$ is the sum of diagonal cells of the mobility table and $f_{++} = \sum_{i=1}^{N}\sum_{j=1}^{N} f_{ij}$ is the grand total of cells of the mobility table.

[13] In the context of comparing mobility across different groups and over time, some studies have used log-linear models to analyse relative mobility rates (see Hertel and Groh-Samberg 2013 and Chan and Boliver 2013).

Row percentages in a mobility matrix indicate the outflow rates from each origin to different destinations. The outflow rates show how men of particular occupational origins (as defined by their fathers' occupations) were distributed across occupational destinations.

In order to examine variations by caste, we disaggregated the data by broad social group into two categories: Scheduled Castes and all Other Castes.[14] We used odds ratios to compare the upward and downward mobility of Scheduled Caste men with men of Other Castes.[15] An odds ratio is a relative measure of mobility. In this paper, we used odds ratios as a measure of the relative chances of downward mobility among sons of Scheduled Caste fathers as compared to sons of Other Caste fathers. To illustrate, the odds ratio is given by the ratio of the odds of sons of non-rural manual workers becoming rural manual workers for Scheduled Caste relative to Other Castes. More formally, for the above example, an odds ratio (Θ) for the 2x2 square matrix with two rows (i, i^*) and two columns (j, j^*), and f as the observed frequency in respective cells, can be written in the following form:

$$\theta = \frac{\frac{f_{ij}}{f_{ij^*}}}{\frac{f_{i^*j}}{f_{i^*j^*}}} \qquad (2)$$

where, f_{ij}= number of Scheduled Caste sons in rural manual work whose fathers were in other occupations.

f_{ij^*}= number of Scheduled Caste sons in occupations of their fathers whose fathers were in other (non-manual worker) occupations.

f_{i^*j}= number of Other Caste sons in rural manual worker occupations whose fathers were in other occupations.

$f_{i^*j^*}$= number of Other Caste sons in occupations of their fathers whose fathers were in other (non-manual worker) occupations.

In this paper, we examine absolute intergenerational occupational mobility rates over three generations by using matrix-based partial father-son mobility tables,

[14] There were very few Scheduled Tribe observations in the selected villages and therefore we have excluded them from this analysis.

[15] When two groups with different occupational distributions are to be compared, a modified mobility measure can be calculated by adjusting for differences in marginal distributions (Long and Ferrie 2013). Such an adjustment is not possible with our data as there are often zero values in certain occupations for particular social groups (for instance, there are no big farmers among Scheduled Caste men).

categorised by grandfathers' occupation. We have also plotted changes in occupational distribution over three generations.

Overall Patterns of Mobility across the Study Villages

We bring together some generalisations based on the patterns of occupational mobility observed in the 10 villages. Village-wise mobility tables for the 10 villages are shown in Appendix Tables A1.1 to A1.10.

Once again, we request readers to note that results are discussed with respect to three groups: (1) current heads of households and their fathers, (2) heads of households and co-resident adult sons, and, (3) the two groups combined (all men). In the case of group (3), the term "father" may refer to fathers in head-of-household and father pairs (P_1) or heads of households in head-of-household and co-resident son pairs (P_2). Similarly, "son" refers both to heads of households in P_1 and co-resident sons in P_2. Most of the tables in this paper show results for all men; results for the two sub-groups (P_1 and P_2) are available on request.

Occupational Structure Across Generations

Before we proceed to analyse patterns of intergenerational occupation mobility in the study villages, we briefly present the occupational distribution of fathers and sons by caste group in Tables 5 and 6. Table 5 can be read as follows. In Bukkacherla village, among fathers belonging to Other Castes, 28 per cent were big farmers, 52 per cent were small farmers, 3 per cent were skilled workers, and 17 per cent were rural manual workers. The occupational distribution for fathers among Scheduled Caste men in the same village was as follows: 62 per cent were small farmers and 38 per cent were rural manual workers. There were no big farmers or skilled workers among Scheduled Caste fathers (in all father-son pairs), although Scheduled Castes comprised 19 per cent of the total village population. Similarly, Table 6 shows that, in Mahatwar village, 64 per cent of Scheduled Caste sons (in all father-son pairs) were rural manual workers. Among Other Caste sons, 20 per cent were rural manual workers, 57 per cent were small farmers, 9 per cent were big farmers, and 14 per cent were skilled workers.

A salient feature of the occupational distribution of populations in the study villages was the disproportionately high percentage of Scheduled Caste men (compared to men of Other Castes), both fathers and sons, engaged in rural manual work.

Absolute Mobility Rates

Across the 10 villages, absolute intergenerational mobility rates for all men ranged from 14.8 per cent to 43.8 per cent (see Table 7, column 3). In eight study villages, the absolute mobility rate was 30 to 40 per cent, indicating that about three-fifths of sons' occupations remained the same as the occupations of their fathers.

Table 5 *Occupational distribution of fathers in all father–son pairs, Scheduled Castes and Other Castes, study villages* in per cent

Village	Caste	Big farmers	Small farmer	Skilled workers	Rural manual workers	Total
Ananthavaram	Other Caste	8	55	12	25	100
	Scheduled Caste	0	32	3	65	100
Bukkacherla	Other Caste	28	52	3	17	100
	Scheduled Caste	0	61	0	38	100
Kothapalle	Other Caste	16	39	9	36	100
	Scheduled Caste	0	30	3	67	100
Alabujanahalli	Other Caste	12	75	1	11	100
	Scheduled Caste	4	54	0	42	100
Siresandra	Other Caste	38	57	0	5	100
	Scheduled Caste	3	66	6	25	100
Zhapur	Other Caste	32	46	3	19	100
	Scheduled Caste	0	46	0	54	100
Harevli	Other Caste	31	38	14	17	100
	Scheduled Caste	0	28	3	70	100
Mahatwar	Other Caste	19	58	8	15	100
	Scheduled Caste	0	50	3	46	100
25F Gulabewala	Other Caste	52	12	8	27	100
	Scheduled Caste	0	5	1	94	100
Warwat Khanderao	Other Caste	22	63	4	11	100
	Scheduled Caste	7	65	0	28	100

Note: "Other Castes" comprise all castes other than Scheduled Castes and Scheduled Tribes.
Source: PARI survey data.

Table 6 *Occupational distribution of sons in all father–son pairs, Scheduled Castes and Other Castes, study villages* in per cent

Village	Caste	Big farmers	Small farmer	Skilled workers	Rural manual workers	Total
Ananthavaram	Other Caste	3	53	22	22	100
	Scheduled Caste	0	37	8	55	100
Bukkacherla	Other Caste	19	38	11	31	100
	Scheduled Caste	0	23	6	71	100
Kothapalle	Other Caste	5	39	20	36	100
	Scheduled Caste	0	21	12	67	100
Alabujanahalli	Other Caste	10	62	12	17	100
	Scheduled Caste	4	33	6	56	100
Siresandra	Other Caste	24	50	13	14	100
	Scheduled Caste	0	53	6	41	100
Zhapur	Other Caste	20	28	13	39	100
	Scheduled Caste	1	21	5	74	100
Harevli	Other Caste	25	42	9	25	100
	Scheduled Caste	0	12	7	81	100
Mahatwar	Other Caste	9	57	14	20	100
	Scheduled Caste	0	27	9	64	100
25F Gulabewala	Other Caste	43	18	13	27	100
	Scheduled Caste	0	1	7	93	100
Warwat Khanderao	Other Caste	10	65	10	15	100
	Scheduled Caste	0	52	7	41	100

Note: "Other Castes" comprise all castes other than Scheduled Castes and Scheduled Tribes.
Source: *PARI survey data.*

Table 7 *Absolute mobility rates among all men, by village and social group* in per cent

Village	District	All men	Other Castes	Scheduled Castes
1	2	3	4	5
Ananthavaram	Guntur	39.0	40.0	40.6
Bukkacherla	Anantapur	43.8	41.4	52.3
Kothapalle	Karimnagar	40.1	40.7	40.9
Alabujanahalli	Mandya	26.2	23.0	27.0
Siresandra	Kolar	39.9	40.0	44.0
Zhapur	Gulbarga	35.3	37.0	29.0
Harevli	Bijnor	32.8	37.0	30.5
Mahatwar	Ballia	36.0	29.0	42.0
25F Gulabewala	Sri Ganganagar	14.8	18.8	10.4
Warwat Khanderao	Buldhana	32.4	27	34.5

Note: "Other Castes" comprise all castes other than Scheduled Castes and Scheduled Tribes.
Source: PARI survey data.

The lowest intergenerational mobility was observed in the village of 25F Gulabewala (in the Gang Canal region of Rajasthan). In this village, there was high immobility across generations in two occupations: rich farmers and manual workers. In 25F Gulabewala, 81 per cent of big farmers' sons remained in the same occupation, the highest proportion among the 10 villages, and 92 per cent of rural manual workers' sons remained in the same occupation as their fathers.[16] This indicates an almost perfect transmission of advantage and disadvantage from one generation to the next among big/rich farmers and rural manual workers. The high occupational segregation prevalent in the fathers' generation was perpetuated in the next generation.

By contrast, Bukkacherla, a village in the dry and drought-prone district of Anantapur, Andhra Pradesh, showed the highest intergenerational occupational mobility among the 10 study villages. The higher mobility rates in Bukkacherla were mainly on account of downward mobility: from small farmers to rural manual workers and from big farmers to small farmers.

In most villages, the absolute mobility rate among Scheduled Caste men was higher or similar to the absolute mobility rate among Other Caste men, with the exception of 25F Gulabewala (see Table 7, columns 4 and 5). In Gulabewala, Scheduled Caste males were predominantly manual workers in both generations (94 per cent and 93 per cent of fathers and sons, respectively) and there was very little mobility across generations. This village stands out in terms of the low mobility rate among

[16] Similar high rates were observed for manual workers in the villages of Zhapur (94) and Alabujanahalli (93) in Karnataka.

Table 8 *Absolute mobility rates by village and father–son pairs (P_1 and P_2)* in per cent

Village	District	P_1 father–HoH	P_2 HoH and co-resident sons
Ananthavaram	Guntur	38.5	40.4
Bukkacherla	Anantapur	44.7	41.6
Kothapalle	Karimnagar	40.2	39.7
Alabujanahalli	Mandya	25.5	28.6
Siresandra	Kolar	48.1	29.7
Zhapur	Gulbarga	29.1	41.3
Harevli	Bijnor	31.4	35.1
Mahatwar	Ballia	32.8	41.7
25F Gulabewala	Sri Ganganagar	16.0	13.1
Warwat Khanderao	Buldhana	39.8	20.2

Source: PAI survey data.
Note: P_1 refers to a father-HoH pair and P_2 refers to a HoH-co-resident son pair, where HoH = head of household.

Dalits (10 per cent). Rawal and Swaminathan (2011) have noted elsewhere that Gulabewala was characterised by an extremely high level of income inequality (with a Gini coefficient of 0.6 for per capita income) in aggregate, as well as high inequality between Dalits and Others. The data on occupational mobility show that the close correlation between caste and occupation (class) is being perpetuated over generations.

In Mahatwar, a Dalit-majority village in eastern Uttar Pradesh, 50 per cent of fathers among Dalit males were small farmers but the corresponding proportion among sons was only 26 per cent (Tables 5 and 6). A distinct shift from small farmers to rural manual workers and less so to skilled workers explains the relatively high mobility rate among Dalit men in Mahatwar.[17]

With a few exceptions, the absolute mobility rate was not very different across the two father–son pairs: heads of households and fathers (P_1), and heads of households and co-resident sons (P_2) (Table 8).[18] For example, the absolute mobility rate was 31 in Harevli among P_1 group men and 35 among P_2 group men.

In Zhapur, the mobility rate was higher for P_2 than for P_1 (41 and 29 respectively). There was higher downward mobility among sons in the head-of-household and co-resident son group (P_2) than in the head-of-household and father group (P_1): downward mobility from small farmers to rural manual workers for co-resident

[17] As shown in a later section, downward mobility from small farmers to rural manual workers was higher among Scheduled Caste men (42 per cent) than among Other Caste men (26 per cent).
[18] For one village, Ananthavaram, mobility tables for P_1 and P_2 are shown separately in Appendix Tables A1.11 and A1.12. Even when aggregate mobility rates are similar, there are differences in the matrices for the two pairs.

Table 9 *Absolute mobility rates for all men by age cohort of father in father–son pairs, study villages* in per cent

Village	Age<=40 years	Age>40 years
Ananthavaram	37.6	40.6
Bukkacherla	44.9	42.0
Kothapalle	36.4	41.8
Alabujanahalli	29.9	22.4
Siresandra	37.6	44.0
Zhapur	43.8	15.9
Harevli	32.2	33.8
Mahatwar	37.1	34.8
25F Gulabewala	11.7	20.3
Warwat Khanderao	27.8	39.2

Source: PARI survey data.

sons was 59 per cent, whereas the same for heads of households was 34 per cent. By contrast, in Warwat Khanderao, we found higher mobility among P_1 as compared to P_2 (40 and 20 respectively). The difference in intergenerational mobility between P_1 and P_2 is mainly on account of higher downward mobility from big farmers to small farmers in the previous generation: 75 per cent of heads of households among big farmers owned less land than their fathers. This could be due to partition of landed property or loss of land for other reasons.[19]

We have also divided fathers in all father-son pairs into two age cohorts: fathers below 40 years and fathers above 40 years (see Table 9). The mobility indices are not very different across age cohorts for most of the villages, the exceptions again being Zhapur in Gulbarga district, Karnataka, and Warwat Khanderao in Buldhana district, Maharashtra. To put it differently, for men who have not migrated and remained in the village, there is no general pattern of higher occupational mobility among sons of the younger age cohort of fathers than the older age cohort of fathers.

Mobility among Rural Manual Workers

We now turn to the category of rural manual workers, the single largest occupational category in most of the study villages. First, we examine the mobility rate for rural manual workers by village, household group, and caste group. Across the 10 villages, immobility ranged from 63 per cent to 94 per cent (see Table 10, column 3). In five villages, more than 80 per cent of sons of manual workers continued to be manual workers. In other words, the overwhelming majority of sons of rural manual workers

[19] We can only speculate as our data set does not contain information on reasons for land loss. Sivakumar (1980), using data on two villages in Tamil Nadu, showed that partition of land is only one of the factors that explains downward mobility among peasants.

Table 10 *Intergenerational immobility rates for rural manual workers by village and father–son pairs (P_1 and P_2)* in per cent

Village	District	All	P_1	P_2
Ananthavaram	Guntur	63	84	57
Bukkacherla	Anantapur	75	91	68
Kothapalle	Karimnagar	76	82	75
Alabujanahalli	Mandya	93	96	91
Siresandra	Kolar	71	100	56
Zhapur	Gulbarga	95	97	92
Harevli	Bijnor	90	90	91
Mahatwar	Ballia	84	88	80
25F Gulabewala	Sri Ganganagar	92	90	94
Warwat Khanderao	Buldhana	64	100	59

Note: P_1 refers to a father-HoH pair and P_2 refers to a HoH-co-resident son pair, where HoH = head of household.

remained in the same occupation as their fathers. Nevertheless, there was some upward mobility for sons of rural manual workers, mainly into the category of skilled workers or small farmers.

We have also reported the immobility rate for the two father–son pairs, P_1 and P_2 (Table 10, columns 4 and 5). In almost all the villages, the immobility rate among manual workers was higher among heads of households and their fathers than among heads of households and their co-resident sons, indicating higher mobility among the younger generation.

Further, sons of rural manual workers belonging to Scheduled Castes had fewer chances of moving out of their fathers' occupational origins than Other Caste men (Table 11, columns 6 and 3). To illustrate, in Harevli village, 84 per cent of sons of rural manual workers were rural manual workers among Other Caste men, whereas the proportion was 90 per cent among Scheduled Caste men. In Siresandra, the only exception, the absolute number of rural manual workers was very small among Other Caste men. Note also that the immobility rate was similar across the two father–son pairs (Table 11).

Relative Mobility Using Odds Ratios

We use odds ratios to examine the shift between two occupational categories. For a 4x4 mobility matrix, we can calculate 36 odds ratios.[20] Here we focus only on a few odds ratios in order to compare the relative chances of upward and downward

[20] Long and Ferrie (2013) show that for a matrix with r and s columns, we can calculate $[r(r-1)/2]$ $[s(s-1)/2]$ odds ratios.

Table 11 *Intergenerational immobility rates for rural manual workers by village, caste group, and father–son pair (P_1 and P_2)* in per cent

Village	District	Other Castes			Scheduled Castes		
		All	P_1	P_2	All	P_1	P_2
1	2	3	4	5	6	7	8
Ananthavaram	Guntur	54	62	51	63	83	56
Bukkacherla	Anantapur	72	86	66	76	86	72
Kothapalle	Karimnagar	74	82	72	75	82	74
Alabujanahalli	Mandya	92	92	88	95	92	100
Siresandra	Kolar	100	100*	100*	50	100*	33*
Zhapur	Gulbarga	89	100	80	96	96	96
Harevli	Bijnor	84	88	82	90	89	91
Mahatwar	Ballia	80	80	80	85	95	79
25F Gulabewala	Sri Ganganagar	89	89	93	94	92	95
Warwat Khanderao	Buldhana	75	78	70	88	43*	88

Notes: (i) "Other Castes" comprise all castes other than Scheduled Castes and Scheduled Tribes.
(ii) *The absolute numbers in these cells are small.
(iii) P_1 refers to a father-HoH pair and P_2 refers to a HoH-co-resident son pair, where HoH = head of household.
Source: PARI survey data.

Table 12 *Immobility rates by occupational categories, study villages* in per cent

Village	Big farmers	Small farmers	Skilled workers	Rural manual workers
Ananthavaram	29.6	61.3	59.3	63.3
Bukkacherla	60.3	46.2	70.0	75.3
Kothapalle	22.0	50.4	56.0	76.3
Alabujanahalli	48.9	77.1	40.0	93.1
Siresandra	51.2	61.9	100.0*	71.4
Zhapur	56.3	46.5	33.3	94.5
Harevli	68.6	55.9	15.8	90.4
Mahatwar	47.4	56.3	56.3	83.6
25F Gulabewala	81.3	65.5	58.8	92.3
Warwat Khanderao	34.4	77.2	71.4	63.5

Note: *The number of observations in this case was small.
Source: PARI survey data.

mobility among Scheduled Caste men and Other Caste men. We have taken two cases of downward mobility (Tables 14 and 15) and one case of upward mobility (Table 13).[21]

In nine out of 10 villages, immobility was higher among rural manual workers than any other occupational category (see Table 12). In the case of Scheduled Castes, this was true in all 10 villages. For example, in Mahatwar village (in western Uttar Pradesh), the immobility rates for big farmers, small farmers, skilled workers, and rural manual workers were 47, 56, 56, and 84, respectively (see diagonal terms of Appendix Table A1.8).

Since rural manual work can be viewed as an occupation of last resort, a shift to any other occupation is treated here as upward mobility. Table 13 (column 6) shows that the odds ratio was greater than one in every village, implying that sons of rural manual workers belonging to Other Castes had a higher chance of upward mobility than sons of rural manual workers belonging to Scheduled Castes. Specifically, in Ananthavaram, the odds ratio was 1.5, that is, the chances of upward mobility for sons of rural manual workers were 1.5 times higher among Other Caste men than Scheduled Caste men. Nevertheless, as Table 13 (column 5) shows, in absolute terms, the rate of upward mobility among Dalit men in Ananthavaram was the highest among all the study villages. This was largely on account of upward mobility from rural manual worker to small farmer through the institution of tenancy. Tenancy was widespread in this region, and sons of landless manual workers were able to lease land and cultivate it.[22] Even though incomes from such cultivation were

[21] As stated earlier, we have chosen occupations where a hierarchy can be established.
[22] For details of the terms of tenancy, see Ramachandran, Rawal, and Swaminathan (2010, chapter 4).

Table 13 *Intergenerational upward mobility rates from rural manual workers to any other occupation, by caste group and odds ratios for upward mobility among Other Caste men relative to Scheduled Caste men, study villages* in per cent

Village	District	All men	Other Caste men	Scheduled Caste men	Odds ratio
1	2	3	4	5	6
Ananthavaram	Guntur	36.3	44.9	37.2	1.5
Bukkacherla	Anantapur	24.7	27.9	24.0	1.2
Kothapalle	Karimnagar	23.7	26.2	24.7	1.1
Alabujanahalli	Mandya	6.9	7.9	5.0	1.6
Siresandra	Kolar	28.6	0.0	50.0	#
Zhapur	Gulbarga	4.6	11.1	4.3	1.3
Harevli	Bijnor	9.6	15.8	9.8	1.7
Mahatwar	Ballia	16.4	20.0	16.4	1.4
25F Gulabewala	Sri Ganganagar	7.7	10.6	6.2	2.1
Warwat Khanderao	Buldhana	36.5	25.0	12.5	7.0

Notes: (i) Odds ratio is a measure of relative chances of upward mobility from rural manual workers to any other occupation for Other Castes relative to Scheduled Castes.
(ii) # In Siresandra, as cell frequency for Other Castes is zero, the odds ratio is not valid.
(iii) "Other Castes" comprise all castes other than Scheduled Castes and Scheduled Tribes.
Source: PARI survey data.

Table 14 *Intergenerational downward mobility rates from any occupation to rural manual workers, by caste group and odds ratios for downward mobility among Scheduled Caste men relative to Other Caste men, study villages* in per cent

Village	District	All men	Other Caste men	Scheduled Caste men	Odds ratio
1	2	3	4	5	6
Ananthavaram	Guntur	22.8	12.5	41.8	5.1
Bukkacherla	Anantapur	29.9	23.2	67.5	6.9
Kothapalle	Karimnagar	21.7	13.6	50.0	6.4
Alabujanahalli	Mandya	8.9	7.2	28.6	5.2
Siresandra	Kolar	13.9	8.6	37.5	6.4
Zhapur	Gulbarga	38.1	38.1	47.5	1.5
Harevli	Bijnor	21.3	12.6	61.1	10.9
Mahatwar	Ballia	25.3	9.4	47.6	8.8
25F Gulabewala	Sri Ganganagar	8.4	43.8	77.8	89.6
Warwat Khanderao	Buldhana	11.8	10.0	23.8	2.8

Notes: (i) "Other Castes" comprise all castes other than Scheduled Castes and Scheduled Tribes.
(ii) The odds ratio is a measure of the relative chances of downward mobility from any other occupation to rural manual labour for Scheduled Castes relative to Other Castes.
Source: PARI survey data.

Table 15 *Intergenerational downward mobility rates from small farmers to rural manual workers, by caste group and odds ratios for downward mobility among Scheduled Caste men relative to Other Caste men, study villages* in per cent

Village	District	All men	Other Caste men	Scheduled Caste men	Odds ratio
1	2	3	4	5	6
Ananthavaram	Guntur	25.2	14.8	42.0	3.5
Bukkacherla	Anantapur	40.9	33.8	67.5	3.4
Kothapalle	Karimnagar	28.5	18.7	47.1	4.9
Alabujanahalli	Mandya	10.6	8.5	30.8	4.3
Siresandra	Kolar	21.4	14.3	42.9	3.3
Zhapur	Gulbarga	45.4	36.4	47.5	1.7
Harevli	Bijnor	32.3	20.4	64.7	9.2
Mahatwar	Ballia	31.9	13.8	49.2	7.2
25F Gulabewala	Sri Ganganagar	24.1	4.5	85.7	108.0
Warwat Khanderao	Buldhana	15.3	13.8	49.2	1.8

Notes: (i) "Other Castes" comprise all castes other than Scheduled Castes and Scheduled Tribes.
(ii) The odds ratio is a measure of the relative chances of downward mobility from the small farmer category to rural manual labour for Scheduled Castes relative to Other Castes.
Source: PARI survey data.

meagre, there was a shift in occupation as such households were classified as poor peasants (small farmers). Another case of a relatively high upward mobility rate among Dalits is Kothapalle village in Telangana. In this village, 17 per cent of sons of Dalit rural manual workers became small farmers and another 8 per cent became skilled workers. The location of this village on a highway provided access to non-agricultural skilled jobs in nearby urban areas.

At the same time, the odds ratios for downward mobility from any occupation to that of rural manual worker were very high and above one in all cases (Table 14, column 6). To illustrate, in Harevli village in western Uttar Pradesh, the odds ratio indicates that downward mobility among Scheduled Caste men was 11 times (10.9) higher than among Other Caste men. The odds ratio was 90 in 25F Gulabewala, the village with the lowest rate of absolute intergenerational occupational mobility.

We also specifically examined mobility from the small-farmer category to the rural manual worker category. Again, the odds ratios were greater than one for all the villages (Table 15, column 6). In Mahatwar, a Dalit-majority village in Uttar Pradesh, the relative chances of downward mobility from small farmers to rural manual workers was seven times higher for Scheduled Caste men than for Other Caste men.

Together, these three tables on upward and downward mobility show that in all the study villages, Scheduled Caste men were at a clear disadvantage as compared to men from Other Castes in respect of both upward and downward mobility.

Results: Three-Generational Mobility

We also examined patterns of occupational mobility over three generations for heads of households, their fathers and their co-resident adult sons in each of the 10 villages. By way of illustration, changes in occupational structure over three generations for two villages, Harevli and Alabujanahalli, are plotted in Appendix 2. The mobility tables showing outflow rates for fathers and sons given the occupation of grandfathers for another two villages, Ananthavaram and Bukkacherla, are shown in Appendix 3. Tables and figures for all the villages are available on request.

As expected, across villages, skilled workers as a proportion of all workers increased over time (in terms of the occupational structure of three generations), while the share of big farmers fell. The changing occupational structure among the three generations in Alabujanahalli (southern Karnataka) is shown in Figure A2.3. The figure shows that the proportion of big farmers and small farmers fell steadily as we moved down generations, whereas the proportion of skilled workers and rural manual workers rose. To take another example, in Ananthavaram (coastal Andhra Pradesh), the proportion of skilled workers in all workers rose from 3 per cent among the first generation to 7 per cent among heads of households and 15 per cent among their sons. The proportion of big farmers in total workers (men) declined from 4 to 1 per cent when moving from the first to third generation.

Although the Scheduled Castes were restricted to fewer occupations than Other Castes even among earlier generations, some changes have occurred over time. For example, in Mahatwar, a Dalit-majority village in eastern Uttar Pradesh, the proportion of skilled workers went from zero among the first generation to three among heads of households and 14 among their sons. The occupations of three generations of Dalit males in Harevli (western Uttar Pradesh) are plotted in Figure A2.2. An interesting feature is the change in the small farmer category: the proportion of small farmers in the three generations went up from 25 per cent among the first generation to 38 per cent among heads of households, and down to 13 per cent among their co-resident sons. In Harevli, too, tenancy was prevalent, with rich, upper-caste Tyagi households leasing out paddy land for cultivation to Dalit households (Rawal 2013).

The multigenerational mobility matrices indicate a high degree of immobility over three generations at both ends of the occupational structure, i.e. rural manual workers and big farmers. Immobility was most pronounced in the category of rural manual workers. To take an example, in Bukkacherla village in Anantapur district, Andhra Pradesh, 100 per cent of men whose grandfathers and fathers worked as rural manual workers entered the same occupation. Similarly, 92 per cent of men whose grandfathers and fathers were big farmers became big farmers themselves (Annexure Table A3.2). In other words, if we examine the marginal occupational distribution of sons by fathers' (head of households') occupation for each occupation of the grandfather, men with advantaged grandfathers were more likely to have

advantaged fathers and men with disadvantaged grandfathers were more likely to have disadvantaged fathers. In Harevli village (western Uttar Pradesh), 85 per cent of men whose grandfathers were big farmers also had fathers who were big farmers. By contrast, 90 per cent of men whose grandfathers were rural manual workers had fathers who were also rural manual workers. 25F Gulabewala village of Rajasthan stands out as the most extreme case of immobility across the villages, where 91 per cent of men whose grandfathers and fathers were big farmers themselves became big farmers, and 92 per cent of men whose grandfathers and fathers were rural manual workers themselves became rural manual workers.

Nevertheless, in some villages, there is a distinct pattern of what has been termed "counter-mobility" in the literature. Hertel and Groh-Samberg (2013) explain the phenomenon of counter-mobility as the presence of a high effect of grandfathers' occupation on sons' occupational choice. They argue that "parents who experienced upward mobility may still have a sense of belonging to their lower class origins. It is likely that they do not object or even fear as strongly as immobile parents their children's return and, in fact, downward mobility to parents' class origins" (*ibid.*, p. 18). Harevli provides a good illustration of this observation. In this village, we observed a counter-mobility pattern among rural manual workers: 39 per cent of heads of households' fathers were rural manual workers; the corresponding proportion was 29 per cent for heads of households, and then rose again to 49 per cent for sons (Figure A2.1). The counter-mobility effect was more marked for men from Scheduled Castes than Other Castes (see Figures A2.2 and A2.3).

Conclusions

This paper examined intergenerational occupational mobility among males in 10 villages in different agro-ecological regions of India.[23] The data came from detailed village census surveys conducted by the Project on Agrarian Relations in India (PARI) of the Foundation for Agrarian Studies between 2005 and 2010 in the States of Andhra Pradesh, Telangana, Uttar Pradesh, Maharashtra, Rajasthan, and Karnataka.

There are two distinguishing features of this analysis. First, the data permit us to consider two types of father–son pairs: heads of households (HoH) and their fathers, and heads of households and their co-resident adult sons. While the former is based on a census, the latter is a restricted sample.[24] Data on co-resident sons allowed us to map occupational change across three generations. As occupation is closely linked to caste in rural India, we have also compared mobility between social groups, using a two-fold categorisation of all men: Scheduled Castes and Other Castes.[25]

[23] This paper outlines the pattern of intergenerational mobility in 10 villages. The processes and mechanisms through which intergenerational mobility occurs, and its impact on the village economy and society will be explored in future research.

[24] Results for the two groups combined are reported here; separate results are available on request.

[25] For this analysis, data on persons belonging to religious minorities and Scheduled Tribes were excluded.

The second distinctive feature of our study is the four-fold occupational classification that we have used. The four occupational categories are big farmers, small farmers, skilled workers/salaried workers/persons engaged in business, and rural manual workers. As data on incomes and assets are not available for the fathers' generation, it is not possible to fully rank all four occupations. Nevertheless, it is clear that big farmers are better off than small farmers. It is also clear that rural manual work is an occupation of last resort in rural areas.

Our first finding, based on mobility matrices showing fathers' (origin) and sons' (destination) occupations is of high immobility. This picture of immobility is observed across all 10 villages located in diverse regions of the country. Immobility was particularly marked among big farmers on the one hand and rural manual workers on the other. For example, in Mahatwar, a Dalit-majority village of eastern Uttar Pradesh, 81 per cent of big farmers' sons and 92 per cent of rural manual workers' sons remained in the same occupation as their fathers. While there are few comparable studies, these data show much higher rates of immobility, particularly among rural manual workers, than has been observed in the region (see Asadullah 2006, based on 141 villages in Bangladesh).

Secondly, in every village, aggregate occupational immobility was higher among manual workers from Scheduled Castes than among manual workers from Other Castes. Thirdly, upward mobility out of the category of rural manual work was much lower for men from the Scheduled Castes than for men from Other Castes. At the same time, downward mobility from any other occupation to the category of rural manual work was much higher for Scheduled Caste men than men from Other Castes. To illustrate, in Harevli village of western Uttar Pradesh, downward mobility among Scheduled Caste men was 11 times higher than among men from Other Castes. At the same time, upward mobility of men from Other Castes was twice as high as among men from Scheduled Castes.

These data strongly support the view that Dalit men who remain in their villages are unable to move out of rural manual labour. The few exceptions are villages where skilled work is available in the vicinity (such as Kothapalle in Karimnagar district of Telangana), or where Dalit households can lease in land and become small cultivators (such as in Ananthavaram in Guntur district in Andhra Pradesh).

While the pace of urbanisation in India has risen in the decade of 2001–11, it is still very low in comparison to other developing countries, including China and countries of East and South-East Asia. A large section of India's population and work force is therefore going to remain rural for the next few decades. Our observations on occupational mobility underline the urgent need for generating opportunities for skilled employment for the mass of rural manual workers, Dalit workers in particular. Such employment generation is critical to improving the well-being of rural populations.

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Appendix 1

Occupational Mobility Tables

Table A1.1 *Mobility matrix for all father–son pairs by occupation of origin and destination, Ananthavaram village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	8	15	4	0	27
	(30)	(56)	(15)	(0)	
Small farmers	2	187	39	77	305
	(1)	(61)	(13)	(25)	
Skilled workers	0	12	35	12	59
	(0)	(20)	(59)	(20)	
Rural manual workers	0	103	32	233	368
	(0)	(27.9)	(8.7)	(63)	
Total	10	317	110	322	759
	(1)	(42)	(14)	(42)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.2 *Mobility matrix for all father–son pairs by occupation of origin and destination, Bukkacherla village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	47	22	5	4	78
	(60)	(28)	(6)	(5)	
Small farmers	5	86	19	76	186
	(3)	(46)	(10)	(41)	
Skilled workers	0	1	7	2	10
	(0)	(10)	(70)	(20)	
Rural manual workers	0	12	6	55	73
	(0)	(16)	(8)	(75)	
Total	52	121	37	137	347
	15	(35)	(11)	(39)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.3 *Mobility matrix for all father–son pairs by occupation of origin and destination, Kothapalle village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	9	24	8	0	41
	(22)	(58)	(19)	(0)	
Small farmers	3	62	23	35	123
	(2)	(50)	(19)	(28)	
Skilled workers	0	5	14	6	25
	(0)	(20)	(56)	(24)	
Rural manual workers	0	25	16	132	173
	(0)	(14)	(9)	(76)	
Total	12	116	61	173	362
	(3)	(32)	(17)	(48)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.4 *Mobility matrix for all father–son pairs by occupation of origin and destination, Alabujanahalli village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	22	17	6	0	45
	(49)	(38)	(13)	(0)	
Small farmers	0	219	35	30	284
	(0)	(77)	(12)	(11)	
Skilled workers	0	3	2	0	5
	(0)	(60)	(40)	(0)	
Rural manual workers	0	3	1	54	58
	(00)	(5)	(2)	(93)	
Total	22	242	44	84	392
	(6)	(62)	(11)	(21)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.5 *Mobility matrix for all father–son pairs by occupation of origin and destination, Siresandra village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	22	16	5	0	43
	(51)	(37)	(12)	(0)	
Small farmers	5	52	9	18	84
	(6)	(62)	(11)	(21)	
Skilled workers	0	0	2	0	2
	(0)	(0)	(100)	(00)	
Rural manual workers	0	4	0	10	14
	(0)	(29)	(0)	(71)	
Total	27	72	16	28	143
	(19)	(50)	(11)	(20)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.6 *Mobility matrix for all father–son pairs by occupation of origin and destination, Zhapur village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	18	2	6	6	32
	(56)	(6)	(19)	(19)	
Small farmers	1	46	7	45	99
	(1)	(46)	(7)	(45)	
Skilled workers	1	1	1	0	3
	(33)	(33	(33)	(0)	
Rural manual workers	0	1	3	69	73
	(0)	(1)	(4)	(94)	
Total	20	50	17	120	207
	(9)	(24)	(8)	(58)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.7 *Mobility matrix for all father–son pairs by occupation of origin and destination, Harevli village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	24	8	3	0	35
	(69)	(23)	(9)	(0)	
Small farmers	0	38	8	22	68
	(0)	(56)	(12)	(32)	
Skilled workers	4	8	3	4	19
	(21)	(42)	(16)	(21)	
Rural manual workers	0	5	2	66	73
	(0)	(7)	(3)	(90)	
Total	28	59	16	92	195
	(14)	(30)	(8)	(47)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.8 *Mobility matrix for all father–son pairs by occupation of origin and destination, Mahatwar village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	9	8	2	0	19
	(47)	(42)	(10)	(0)	
Small farmers	0	67	14	38	119
	(0)	(56)	(12)	(32)	
Skilled workers	0	6	9	1	16
	(0)	(37)	(56)	(6)	
Rural manual workers	0	9	2	56	67
	(0)	(13)	(3)	(84)	
Total	9	90	27	95	221
	(4)	(41)	(12	(43)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.9 *Mobility matrix for all father–son pairs by occupation of origin and destination, 25F Gulabewala village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	78	12	6	0	96
	(81)	(12)	(6)	(0)	
Small farmers	1	19	2	7	29
	(3)	(65)	(7)	(24)	
Skilled workers	0	2	10	5	17
	(0)	(12)	(59)	(29)	
Rural manual workers	0	0	15	180	195
	(0)	(0)	(8)	(92)	
Total	79	33	33	192	337
	(23)	(10)	(10)	(57)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.10 *Mobility matrix for all father–son pairs by occupation of origin and destination, Warwat Khanderao village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	21	34	5	1	61
	(34)	(56)	(8)	(2)	
Small farmers	4	176	13	35	228
	(2)	(77)	(6)	(15)	
Skilled workers	0	4	10	0	14
	(0)	(29)	(71)	(0)	
Rural manual workers	1	12	6	33	52
	(2)	(23)	(11)	(63)	
Total	26	226	34	69	355
	(7)	(64)	(10)	(19)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.11 *Mobility matrix for father–head of household pairs by occupation of origin and destination, Ananthavaram village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	6	15	3	0	24
	(25)	(63)	(13)	(0)	
Small farmers	2	144	26	28	200
	(1)	(72)	(13)	(14)	
Skilled workers	0	10	26	5	41
	(0)	(24)	(63)	(12)	
Rural manual workers	0	98	23	160	281
	(0)	(35)	(8)	(57)	
Total	8	267	78	193	546
	(2)	(49)	(14)	(35)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Table A1.12 *Mobility matrix for head of household and co-resident son pairs by occupation of origin and destination, Ananthavaram village*

Father's occupation	Son's occupation				
	Big farmers	Small farmers	Skilled workers	Rural manual workers	Total
Big farmers	2	0	1	0	3
	(67)	(0)	(33)	(0)	
Small farmers	0	43	13	49	105
	(0)	(41)	(12)	(47)	
Skilled workers	0	2	9	7	18
	(0)	(11)	(50)	(39)	
Rural manual workers	0	5	9	73	87
	(0)	(6)	(10)	(84)	
Total	2	50	32	129	213
	(1)	(24)	(15)	(61)	

Note: Figures in parentheses represent cell values as a percentage of the row total.
Source: PARI survey data.

Appendix 2

Occupational Structure by Generation for Selected Villages

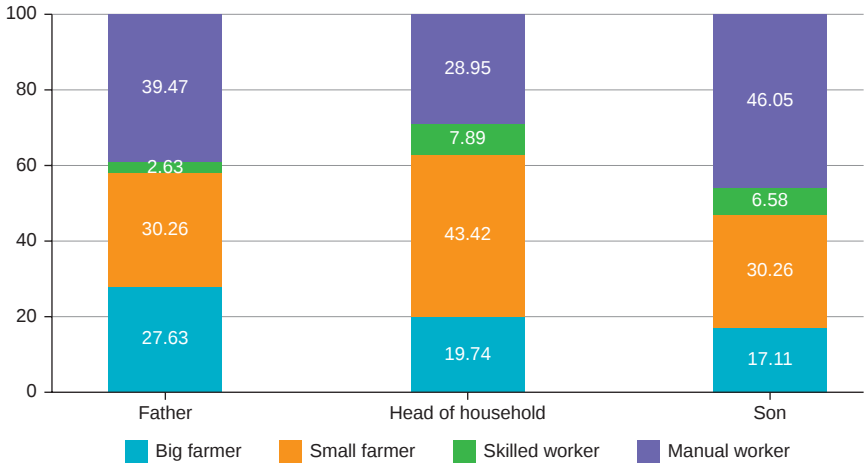

Figure A2.1 *Occupational distribution by generation for male lineage in Harevli*

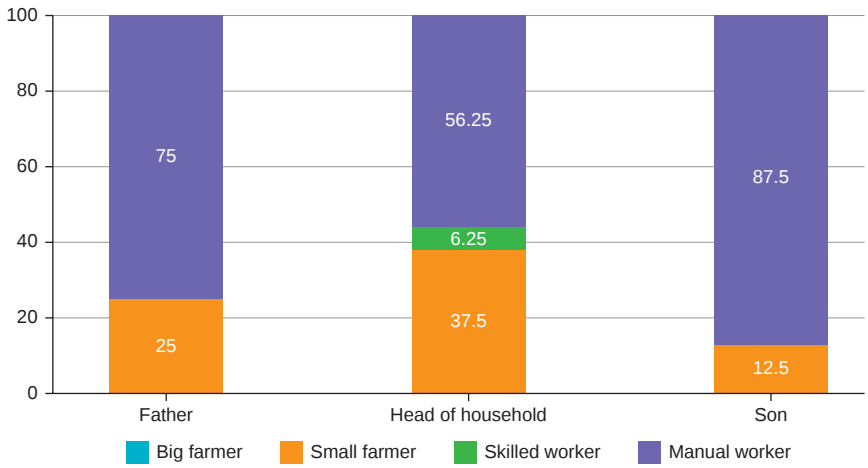

Figure A2.2 *Occupational distribution by generation for male lineage in Harevli, Scheduled Castes*

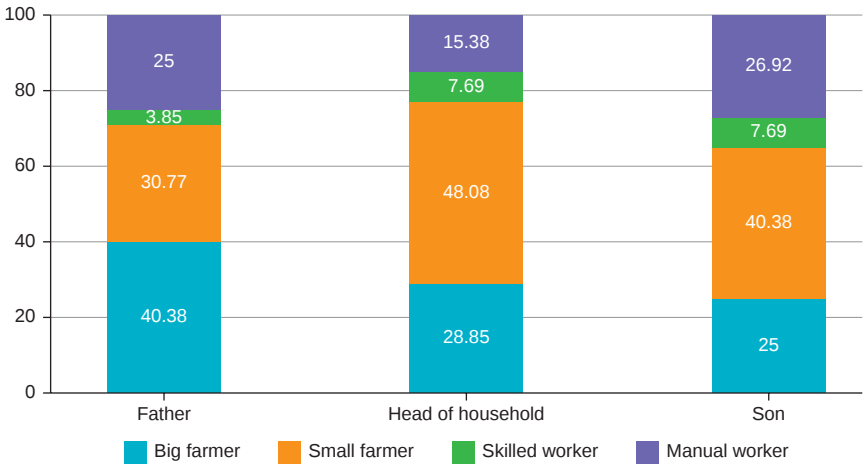

Figure A2.3 *Occupational distribution by generation for male lineage in Harevli, Other Castes*

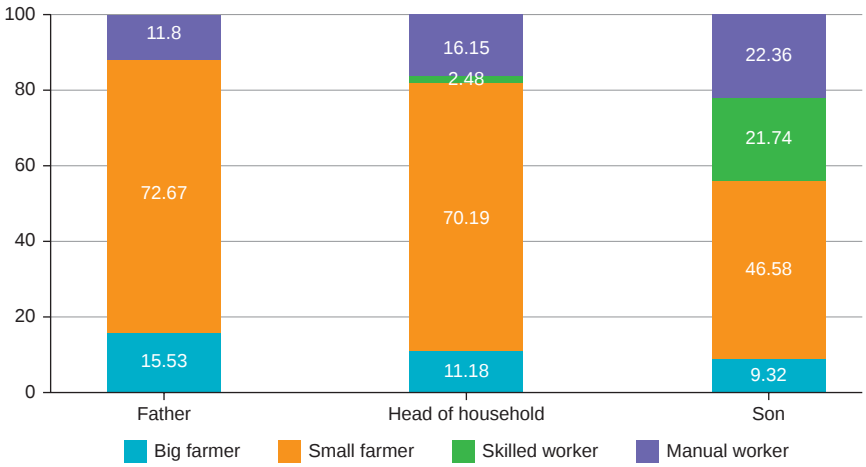

Figure A2.4 *Occupational distribution by generation for male lineage in Alabujanahalli*

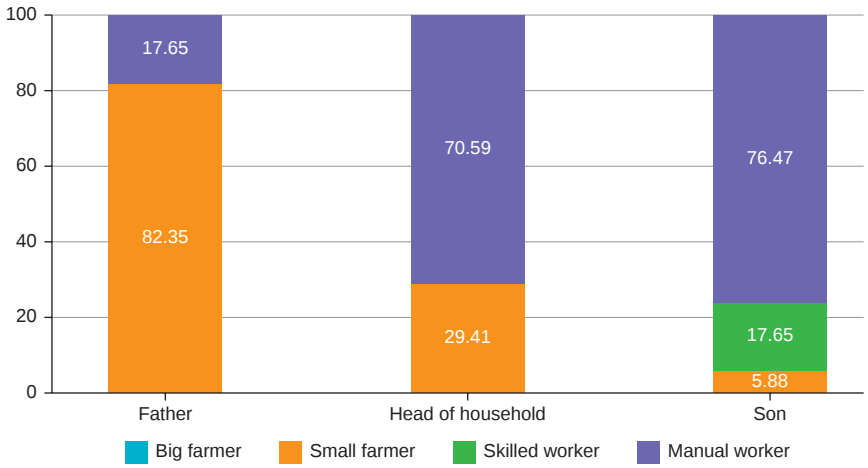

Figure A2.5 *Occupational distribution by generation for male lineage in Alabujanahalli, Scheduled Castes*

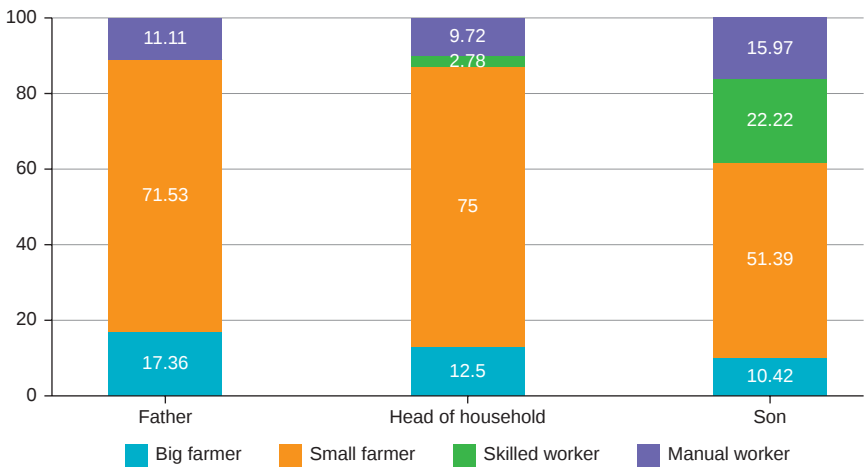

Figure A2.6 *Occupational distribution by generation for male lineage in Alabujanahalli, Other Castes*

Appendix 3

Table A3.1 *Men's outflow mobility rates by fathers' (F) and head of households' (HOH) occupation, Ananthavaram village*

		Big farmer (BF)	Small farmer (SF)	Skilled worker (SW)	Rural manual worker (RMW)
F: BF	HOH: BF	67	0	33	0
	HOH: SF	0	75	25	0
	HOH:SW	0	0	0	100*
	HOH: RMW	0	0	0	0
F: SF	HOH: BF	0	0	0	0
	HOH: SF	0	53	14	33
	HOH:SW	0	17	50	33
	HOH: RMW	0	0	33	67
F: SW	HOH: BF	0	0	0	0
	HOH: SF	0	100*	0	0
	HOH:SW	0	0	100*	0
	HOH: RMW	0	0	0	100*
F: RMW	HOH: BF	0	0	0	0
	HOH: SF	0	26	11	64
	HOH:SW	0	25*	25*	50*
	HOH: RMW	0	2	6	92

Note: *the absolute numbers in these cells are very small. HOH=head of household.
Source: PARI survey data.

Table A3.2 *Men's outflow mobility rates by fathers' (F) and head of households' (HOH) occupation, Bukkacherla village*

		Big farmer (BF)	Small farmer (SF)	Skilled worker (SW)	Rural manual worker (RMW)
F: BF	HOH: BF	94	0	6	0
	HOH: SF	0	60	0	40
	HOH:SW	0	0	0	0
	HOH: RMW	0	0	0	100
F: SF	HOH: BF	80	0	20	0
	HOH: SF	0	21	32	47
	HOH:SW	0	0	0	0
	HOH: RMW	0	11	11	78
F: SW	HOH: BF	0	0	0	0
	HOH: SF	0	0	0	0
	HOH:SW	0	100	0	0
	HOH: RMW	0	0	0	0
F: RMW	HOH: BF	0	0	0	0
	HOH: SF	0	14	14	71
	HOH:SW	0	0	100	0
	HOH: RMW	0	0	0	100

Note: *the absolute numbers in these cells are very small. HOH=head of household.
Source: PARI survey data.