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Are Scheduled Tribes Educationally Immobile? A study through Mobility Matrix over Three Generation

*Salim Mandal

Research Scholar, Department of Geography, University of Gour Banga, Malda (India)

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***Corresponding Author**

Email: geosalim16edu[at]gmail.com

ABSTRACT

In India the development of education is growing in a faster way, but there are some backward groups who are not able to access the advantages of education very aptly. Constitutionally scheduled tribe is one of them. The present investigation is dealing with the scheduled tribes of a backward district of West Bengal namely Dakshin Dinajpur where about 16 percent tribal people are lived. The key objectives of the study are to assess the generation wise educational mobility of scheduled tribes. To fulfil the objectives 280 households are surveyed from where 273 persons are taken as the main respondents (7-24 years old). The mobility matrixes have been developed taking three generations and though it is found that the younger generation is more mobile than the older one, the mobility is confined mostly to the lower level of education.

1 Introduction

The educational mobility from generation to generation gives the idea about the educational development of a particular group of people, community of a region. And it would be easy to understand that which generation is more mobile regarding educational attainment. Society with high educational mobility can achieve developmental goal effortlessly. Intergenerational educational mobility is an indicator of progress or improvement in education of a particular family as well as a whole society. But statistics related to parents' and grand parents' educational attainment is not available in the context of India (Azam and Bhatt, 2015). Family background has a great influence on the intergenerational educational mobility (Lillard & Willis, 1994). Parental factors like their education, occupation also have certain influence on the educational attainment of the next generation of any society (Cohen, 1965). Number of family members, siblings (Blake, 1985), gender or sex (Alexander & Eckland, 1974) have influenced on education of any generation in some extent. A few studies are associated with intergenerational educational mobility in India. Intergenerational educational transmission has been studied (Jalan and Murgai, 2008; Choudhary & Singh, 2017) using National Family Health Survey (NFHS), 1998-1999, but educational mobility among females has not been estimated. Moreover investigation of intergenerational educational, occupation and income mobility using National Sample Survey (NSS) data (Hnatkovska et al. 2012) also does not examine the female educational mobility. Hereunder the expatiation of intergenerational educational mobility among the scheduled tribes is traced taking the respondents as the present generation.

The current study is going to deal with educational mobility among Scheduled Tribe of Dakshin Dinajpur District on the basis of field based survey (2016-2017).

2. Who are Scheduled Tribes?

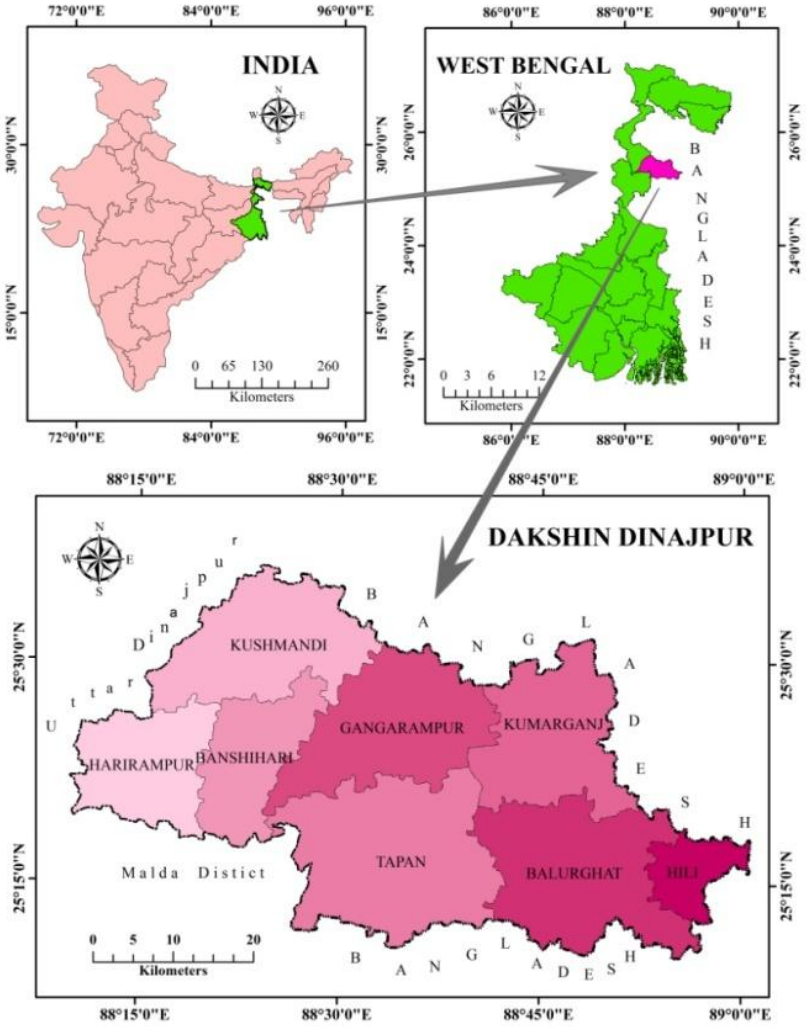
In the Constitution of India, the Article 366 (25) refers to Scheduled Tribes as those communities, who are scheduled in agreement with Article 342 of the Constitution. According to this Article, only those communities will be considered to be Scheduled Tribes, who have been affirmed as such by the President through an initial public notification or through a succeeding amending Act of Parliament.

According to the Indian constitution (Articles-366(25), 342), the essential characteristics which delineated by the Lokur Committee[1], to be Scheduled Tribe of a community are (i) Indication of primitive traits; (ii) Distinctive culture; (iii) Timidity of contact with the community at large; (iv) Geographical remoteness; and (v) Backwardness. Basically tribal people live various 'ecological and geo-climatic' conditions such as from plain and forest to hills and inaccessible areas at different stages of social, economic and educational development.

3. The Study area and Sample

To achieve the study of generation wise educational mobility of scheduled tribes the primary survey has been conducted during the period of 2016-2017 in some selected parts of Dakshin Dinajpur District.

[1]Lokur committee was the advisory committee on revision of Scheduled caste (SC) and Scheduled Tribe (ST) list, 1965. Shri B. N. Lokur, Secretary to the Government of India, Ministry of Law, was the Chairman of the Advisory Committee. The task of the Committee involved the examination of the historical and scientific background of over eight hundred tribal communities and caste groups and assessment of their social, educational and economic conditions with a view to determining their eligibility to be specified in the lists of Scheduled Castes and Scheduled Tribes.



(*Figure 1* Location of the Study Area)

Following the multistage stratified random sampling, 280 tribal households have been surveyed to convey the study. It also should be mentioned that in seven households among 280 households, there was unavailability respondents in the respective age group (07-25 years) and therefore, 273 households have been included in the analysis. It has been tried to conduct a multistage stratified random sampling from where 53.22 percent sample is collected from the educationally developed block, Balurghat and the rest 46.78 percent has been compiled from the comparatively less educationally developed block Gangarampur, which is actually based on the composite index related to the educational accessibility to the population of respective blocks. Educational attainment of the present generation, parents' generation and grandparents' generation have been acquired during the primary survey. Out of 273 respondents (07-25 years old), 153 were males and 120 were females. In respect of male respondents, educational attainment of father and grandfather has been taken into consideration. On the other hand, in regard of female respondents, they were asked to inform about the educational attainment of their mother and maternal grandmother.

4. Mobility Measures

To identify the intergenerational mobility related to education level of the tribal people mobility matrices have been incorporated in the study. There are three consecutive generations i.e. respondents (male/female, age group 7-25 years old), father/ mother and grandfather / maternal grandmother; have been taken into consideration to achieve the mobility matrices. Three matrix tables are drawn for males and three for females separately; they are between father and grandfather, respondents (son) and father, respondents (son) and grandfather, mother and maternal grandmother, respondents (daughter) and mother and lastly respondents (daughter) and maternal grandmother. Following the matrix tables for intergenerational education, total mobility (M1), upward mobility (M_{up}), downward mobility (M_{down}) and net mobility (M2) have been formulated in the study. Educational transition or mobility matrices provide the percentages of males/ females who actually fit in to a particular educational level corresponding to their fathers' or mothers' as well as their grandfathers' or maternal grandmothers' educational level or category. It should be mentioned that the obtained percentages is one type of conditional probabilities, i.e., the probability of the respondents educational level in some extend is determined by the educational level of their previous generation (Choudhary & Singh, 2017).

As a useful statistical tool, mobility measures specifically have been developed to understand and examine the educational mobility (Formby et al. 2004; Motiram and Singh 2012; Van De Gaer et al. 2000). If the levels of education are ranked in ascending order i.e. i, j= 1, 2.....m, where i, j= 1 is the lowest level of education and on the other hand i, j= m is the highest level of education, then the total mobility (M1) can be assessed as following:

The Total mobility measure, M1 is

$$M1 = \frac{1}{m}\sum_{i=1}^{m}\sum_{\substack{j=1 \\ j\neq 1}}^{m} Pij$$

$$= \frac{1}{m}\sum_{i=1}^{m}\sum_{\substack{j=1 \\ j\neq 1}}^{i=1} Pij + \frac{1}{m}\sum_{i=1}^{m}\sum_{j=i+1}^{m} Pij$$

Following the above formula, upward and downward mobility can be written separately. Therefore,

$$M_{down} = \frac{1}{m}\sum_{i=1}^{m}\sum_{\substack{j=1 \\ j\neq 1}}^{i=1} Pij$$

$$M_{up} = \frac{1}{m}\sum_{i=1}^{m}\sum_{j=i+1}^{m} Pij$$

Therefore it is vivid that the total mobility (M1) is a combination of downward and upward mobility, where M_{down} is the probability that the younger generation will have lower education than the previous or elder generation; similarly, M_{up} is the probability that the younger generation will have more education than the previous or elder generation. In addition to this, net mobility (M2) has been calculated. Better net mobility (M2) is the result of lesser downward mobility and higher upward mobility. The net mobility can be assessed as follows:

$$M2 = \frac{1}{(m-1)}\sum_{i=1}^{m}\sum_{j=1}^{m} Pij|i-j|$$

The total possible mobility between two generations is *m (m-1).* And for a particular education of the elder generation (i), the expected distance between the levels of education of those two particular two generations is $\sum_{i=1}^{m}\ \sum_{j=1}^{m} Pij|i-j|$.

All the above mentioned measures can be generalised in the following ways:

Total Mobility (M1) $= \frac{Total\ number\ of\ Steps\ covered\ by\ the\ persons}{Total\ mobile\ Persons}$

Downward Mobility (M_{down}) $= \frac{Total\ number\ of\ Negative\ Steps\ covered\ by\ the\ persons}{Total\ Downwad\ mobile\ Persons}$

Upward Mobility (M_{up}) $= \frac{Total\ number\ of\ Positive\ Steps\ covered\ by\ the\ persons}{Total\ Upward\ mobile\ Persons}$

Net Mobility (M2) $= \frac{(Total\ number\ of\ Positive\ Steps - Total\ number\ of\ Negative\ Steps)}{Total\ mobile\ Persons}$

The steps of educational mobility have been calculated from the prepared mobility matrix tables. In a matrix table, step means movement from one cell to another. The step may be upward or downward direction. Only one step is counted during the movement into the next immediate cell and it can vary according to the cases. From the illiteracy to post graduation or vice versa, one can take maximum of six steps, in comparison to the earlier generation.

5. Analysis

The educational attainments of the Scheduled Tribes over three generations among males and females have been shown in the tables 1.1 and 1.2 from where it is clear that majority of the scheduled tribes are illiterates all the way through the three generations. From the table 1 it is viewed that only 11 persons (7%) from the grandfathers' generation were literates out of 153. And among these 11 persons, about 64 percent of them have only the minimum level of education i.e. primary education. In respect of fathers' generation there was some improvement in the number of literates seeing that 36 persons (23.53%) are identified as literates. Among 36 literates at fathers' generation, 10 (27.77%) persons were belonged to more than primary education level while 26 literates (72.22%) had only primary education. On the other hand, at the present or respondents' generation number of illiterates has come down to 61 persons (39.87%) out of 153 where as 92 respondents (more than 60%) are identified as literates. Among the literates (92), about 22 percent respondents have secondary and more than secondary level of education and out of them only 2 respondents have achieved the highest level of education i.e. the post graduation.

Table 1 *Educational Attainments Scheduled Tribe Males over Three Generations*

Educational level	Grandfather		Father		Respondent (M)		Total	
Illiterate	139	(90.86)	117	(76.48)	61	(39.87)	330	(71.89)
Primary	7	(4.58)	26	(17.00)	43	(28.10)	76	(16.56)
Upper Primary	2	(1.30)	4	(2.62)	29	(18.96)	30	(6.53)
Secondary	1	(0.65)	1	(0.65)	12	(7.85)	9	(1.96)
H.S.	0	(0.00)	2	(1.30)	5	(3.27)	4	(0.87)
Graduate	1	(0.65)	2	(1.30)	1	(0.65)	4	(0.87)
Post Graduate	0	(0.00)	1	(0.65)	2	(1.30)	3	(0.66)
Don't Know	3	(1.96)	0	(0.00)	0	(0.00)	3	(0.66)

Total	153	(100.00)	153	(100.00)	153	(100.00)	459	(100.00)

Note: Percentages are shown within bracket.

Table 2 *Educational Attainments Scheduled Tribe Females over Three Generations*

Educational level	**Grandmother**		**Mother**		**Respondent (F)**		**Total**	
Illiterate	107	(89.17)	98	(81.67)	57	(47.50)	276	(76.67)
Primary	6	(5.00)	16	(13.33)	30	(25.00)	50	(13.89)
Upper Primary	2	(1.67)	4	(3.33)	21	(17.50)	19	(5.28)
Secondary	0	(0.00)	2	(1.67)	7	(5.83)	7	(1.94)
H.S.	0	(0.00)	0	(0.00)	3	(2.50)	1	(0.28)
Graduate	0	(0.00)	0	(0.00)	2	(1.67)	2	(0.55)
Post Graduate	0	(0.00)	0	(0.00)	0	(0.00)	0	(0.00)
Don't Know	5	(4.16)	0	(0.00)	0	(0.00)	5	(1.39)
Total	120	(100.00)	120	(100.00)	120	(100.00)	360	(100.00)

Note: Percentages are shown within bracket.

From the table 2 it is vivid that only 8 persons (6.67%) from the grandmothers' generation were literates out of 120. And among these 8 persons, about 75 percent of them have only the minimum level of education i.e. primary education. In respect of mothers' generation there was a little bit improvement in the number of literates since 22 persons (18.33%) are identified as literates. Among 22 literates at mothers' generation, 6 (27.27%) persons were belonged to more than primary education level while 16 literates (72.73%) had only primary education. On the other hand, at the present or respondents' generation of females, the number of illiterates has come down to 57 persons (47.50%) out of 120 where as 63 respondents (52.5%) are identified as literates. Among the female literates (63), about 19 percent respondents have secondary and more than secondary level of education and only 2 respondents have completed the graduate level of education.

The educational mobility matrix tables are prepared with similar number of rows and columns of educational categories. Taking two generation at a time, the educational categories of one generation are shown by rows and education levels of another generation are exposed by columns. As the educational levels two generations at a time are arranged in the similar order of rows and columns, immobility is indicated by the diagonal cells in the table. Therefore, the educational immobility can be identified by summing up the total frequencies of in the diagonal cells. Similarly the frequencies excepting the diagonal cells indicate the total mobile persons which can be decomposed into downward and upward mobility

In the matrix tables educational levels are indicated by the numbers as follows:

Level of Education	*Numbers*
Illiterate	*1*
Primary Education	*2*
Upper Primary Education	*3*
Secondary Education	*4*
Higher Secondary (H.S.) Education	*5*
Graduation	*6*
Post Graduation	*7*

5.1 Educational Mobility of Male Respondents

The educational mobility between respondents' grandfather and respondents' father has been revealed in the table 3. It should be mentioned that educational details of three grandfathers were unavailable, hence there are 150 cases are considered instead of 153 to develop the educational mobility table of respondents' father and respondents' grandfather generation. It is viewed that 116 respondents' fathers (77.33%) are educationally immobile compared to the respondents' grandfathers, at the same time only 34 (22.67%) are identified as mobile. Out of the 116 immobile respondents' fathers compared to the grandfathers, 113 (97.41%) are remained at the illiterate stage and only two from each generation had primary education.

On the other hand, out of 34 mobile respondents' fathers in relation to respondents' grandfathers, 32 (94.12%) are positively mobile in terms of educational attainment where as two (5.88%) are negatively mobile. Among the 32 upwardly mobile respondents' father compared to the respondents' grandfather, 23 respondents' father have completed primary education from illiterate grandfathers, two fathers have

achieved upper primary education from illiterate grandfathers and one from primary level of education. From the two primary educated grand fathers, one father has achieved secondary education and other has achieved higher secondary education; two could become graduates, one is from primary educated grandfather and one is from secondary educated grandfather; and one father has achieved post graduation from a graduate respondent's grandfather.

In respect of downward mobility, two respondents' fathers have gone down to attain upward educational level compared to their respondents' grandfathers i.e. one respondent's father has remained at primary level of education while the respondent's grandfather has cleared the upper primary level and one respondent's father has remained illiterate while the respondent's grandfather has at least primary education.

Table 3 *Educational mobility between Grandfather and Father*

Educational Level		Respondents' Grandfather 7	6	5	4	3	2	1	Total
Respondents' Father	7								0(0.00)
	6	1(0.66)							1(0.66)
	5								0(0.00)
	4		1(0.66)						1(0.66)
	3					1(0.66)	1(0.66)		2(1.33)
	2		1(0.66)	1(0.66)	1(0.66)	1(0.66)	2(1.33)	1(0.66)	7(4.66)
	1			1(0.66)		2(1.33)	23(15.3)	113(75.3)	139(92.6)
Total		1(0.66)	2(1.33)	2(1.33)	1(0.66)	4(2.67)	26(17.3)	114(76.0)	150(100)

Downwardly mobile Immobile Upwardly mobile

Note: Due to unavailability of education level of three grandfathers, 150 observations have been included instead of 153. Percentages are shown within bracket

The educational mobility between respondents' father and respondents' generation has been revealed in the table 4. It is observed that 71 respondents (46.40%) are educationally immobile compared to the respondents' fathers, at the same time 82 (53.60%) are identified as mobile. Out of the 71 immobile respondents compared to the respondents' fathers, 57 (80.28%) are remained at the illiterate stage and twelve (12) from each generations had primary education as well as one respondent is immobile at H.S. stage and another respondent is immobile at the highest education level i.e. post graduation.

On the other hand, out of 82 mobile respondents in relation to respondents' fathers 74 (90.24%) are positively mobile in terms of educational attainment where as eight respondents (9.76%) are negatively mobile. Among the 74 upwardly mobile male respondents compared to the respondents' father, 29 respondents have completed primary education from illiterate fathers; 21 respondents have achieved upper primary education, seven respondents have accomplished secondary education, three have obtained higher secondary education from their illiterate fathers. From 11 primary educated father generations, six respondents have cleared upper primary education and five respondents have achieved secondary education. One respondent has become a graduate and one respondent has completed post graduation from a H.S. educated father and from a graduate father respectively.

In respect of downward mobility, eight respondents have failed to attain upward educational level compared to their fathers i.e. four respondents have remained illiterate while their father have cleared the primary and upper primary level and two respondents have remained at primary level of education while the respondents' father has cleared upper primary education.

Table 4 *Educational mobility between Father and Respondent*

Educational Level		Father (Row) 7	6	5	4	3	2	1	Total
Respondents (Male) (Column)	7	1(0.65)							1(0.65)
	6	1(0.65)				1(0.65)			2(1.30)
	5			1(0.65)		1(0.65)			2(1.30)
	4		1(0.65)						1(0.65)
	3			1(0.65)			2(1.30)	1(0.65)	4(2.61)
	2				5(3.27)	6(3.92)	12(7.84)	3(1.96)	26(16.99)
	1			3(1.96)	7(4.57)	21(13.7)	29(18.9)	57(37.2)	117(76.47)
Total		2(1.30)	1(0.65)	5(3.27)	12(7.84)	29(18.9)	43(28.1)	61(39.9)	153(100.0)

Downwardly mobile Immobile Upwardly mobile

Note: Percentages are shown within bracket

The table 5 gives detail about the educational mobility between respondents' grandfather and respondents' generation. It is observed that 60 respondents (40.00%) are educationally immobile compared to the respondents' grandfathers, at the same time 90 (60.00%) are identified as mobile. Out of the 60 immobile respondents compared to the respondents' grandfathers, 58 (96.67%) are remained at the illiterate stage and two respondents are immobile at only primary education.

On the other hand, out of 90 mobile respondents compared to respondents' grandfathers, 89 (98.89%) are positively mobile in terms of educational attainment where as one respondent is negatively mobile. Among the 89 upwardly mobile male respondents compared to the respondents' grandfather, 41 respondents have completed primary education from illiterate grandfathers; 28 respondents have achieved upper primary education, eight respondents have achieved secondary education, four have obtained higher secondary education from their illiterate grandfathers. From four primary educated grandfather generations, three respondents have cleared secondary education, one respondent has achieved higher secondary education and one respondent has achieved post graduation degree. One respondent has become a graduate and one respondent has completed post graduation from an upper primary educated grandfather and from a graduate grandfather correspondingly.

In respect of downward mobility, only one respondents has failed to attain upward educational level compared to his grandfather as the respondent has completed upper primary level where as the grandfather has cleared secondary level of education.

Table 5 *Educational mobility between Grandfather and Respondent*

Education Level		Grandfather (Row)							Total
		7	*6*	*5*	*4*	*3*	*2*	*1*	
Respondents (Male) (Column)	*7*								0(0.00)
	6	1(0.66)							1(0.66)
	5								0(0.00)
	4					1(0.66)			1(0.66)
	3		1(0.66)		1(0.66)				2(1.33)
	2	1(0.66)		1(0.66)	3(2.00)		2(1.33)		7(4.66)
	1			4(2.66)	8(5.33)	28(18.67)	41(27.33)	58(38.66)	139(92.67)
Total		2(1.33)	1(0.66)	5(3.33)	12(8.0)	29(19.33)	43(28.6)	58(38.7)	150(100.0)

Downwardly mobile Immobile Upwardly mobile

Note: Due to unavailability of education level of three grandfathers, 150 observations have been included instead of 153. Percentages are shown within bracket

The table 6 speaks about various measures of educational mobility applied on the sampled scheduled tribe male respondents. Here first two measures are percentages which depict that mobility between respondents' grandfather and respondents' father generation is very low (22.66%). In respect of the mobility between respondents' father and respondent generation as well as respondents' grandfather and respondent generation are 53.60 percent and 60.00 percent respectively. Secondly in terms of immobility between grandfather & father, father & respondent and grandfather & respondent the percentage are 77.34, 46.40 and 40.00 respectively. Therefore, it is apparent that immobility is more pronounced among the elder generations.

Table 6 *Educational mobility over three generation (for Male Respondents)*

Measurement	**Grandfather & Father**	**Father & Respondent**	**Grandfather & Respondent**
Percentage Mobile	22.66 (34)	53.60 (82)	60.00 (90)
Percentage Immobile	77.34 (116)	46.40 (71)	40.00(60)
Total Mobility	1.35 (34)	1.67 (82)	1.74 (90)
Upward Mobility	1.37 (32)	1.69 (74)	1.75 (89)
Downward Mobility	1.00 (02)	1.50 (08)	1.00 (01)
Net Mobility	1.23 (34)	1.38 (82)	1.72 (90)

Note: Values in bracket indicates number of cases

The table 6 also indicates that the total mobility (M1) is more (1.74) in respect of the mobility between respondents' grandfather and respondent generation and lowest total mobility (M1) can be seen between respondents' grandfather and respondents' father generation (1.35).

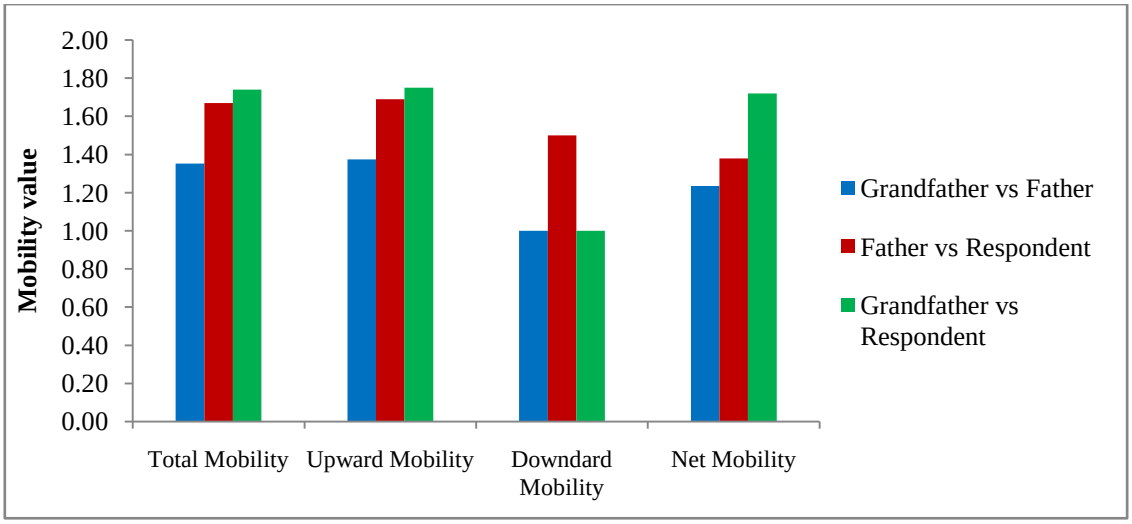


Figure 2 Status of Educational Mobility for Male Respondents

The positive mobility (M_{up}) is less (1.37) between respondents' grandfather and respondents' father generation while it is high (1.75) between the generation of respondents' grandfather and respondent. On the other hand negative mobility (M_{down}) is high (1.50) between the generation of father and respondents. The final measure net mobility (M2) is better (1.72) among the respondents against the generation of their grandfathers compare to grandfathers versus father (1.23) and father versus respondents (1.38).

5.2 Educational Mobility of Female Respondents

The educational mobility between respondents' maternal grandmother and respondents' mother has been revealed in the table 7. It should be stated that educational details of five maternal grandmothers were unavailable, hence there are 115 cases are considered instead of 120 to develop the educational mobility table of respondents' mother (column) and respondents' grandmother (row) generation. It is observed that 93 respondents' mothers (80.87%) are educationally immobile compared to the respondents' maternal grandmothers, at the same time only 22 (19.13%) are identified as mobile. Out of the 93 immobile respondents' mothers compared to their maternal grandmothers, 91 (97.85%) are remained at the illiterate stage and among the left, one is immobile at primary stage whereas another is immobile at upper primary level of education.

On the other hand, out of 22 mobile respondents' mothers in relation to respondents' grandmothers, 20 (90.90%) are positively mobile in terms of educational attainment where as two (9.09%) are negatively mobile. Among the 20 upwardly mobile respondents' mothers compared to the respondents' grandmother, 15 respondents' mothers have completed primary education from illiterate respondents' grandmothers, three mothers have achieved upper primary education, one from illiterate respondents' grandmother and two from primary educated respondents' grandmothers. And two respondents' mothers have achieved secondary level of education whereas one from primary educated respondent's grandmother and another from upper primary educated respondent's maternal grandmother.

In respect of downward mobility, two respondents' mothers have gone down to attain upward educational level compared to respondents' maternal grandmothers and both of them are remained illiterate though their mothers (respondents' maternal grandmothers) were primary educated.

Table 7 *Educational mobility between Maternal Grandmother and Mother*

Education Level		Respondents' Maternal Grandmother (Row)							Total
		7	*6*	*5*	*4*	*3*	*2*	*1*	
Respondents' Mother (Column)	*7*								0(0.00)
	6								0(0.00)
	5								0(0.00)
	4								0(0.00)
	3				1(0.87)	1(0.87)			2(1.74)
	2				1(0.87)	2(1.74)	1(0.87)	2(1.74)	6(5.21)
	1					1(0.87)	15(13.0)	91(79.1)	107 (93.04)
Total		0 (0)	0 (0)	0 (0)	2(1.74)	4(3.47)	16(13.9)	93(80.8)	115 (100)

Downwardly mobile Immobile Upwardly mobile

Note: Due to unavailability of education level of 5 grandmothers, 115 observations have been included instead of 120. Percentages are shown within bracket

The educational mobility between respondents' mother and female respondents' generation has been presented in the table 8. It is observed that 62 respondents (51.67%) are educationally immobile compared to the respondents' mothers, at the same time 58 (48.33%) are identified as mobile. Out of the 62 immobile respondents compared to the respondents' mothers, 54 (87.09%) are remained at the illiterate stage and seven (7) from each generations had primary education as well as one respondent is immobile at upper primary stage.

On the other hand, out of 58 mobile respondents in relation to respondents' mothers 54 (93.10%) are positively mobile in terms of educational attainment where as four (4) respondents (6.90%) are negatively mobile. Among the 54 upwardly mobile female respondents compared to the respondents' mother, 23 respondents have completed primary education from illiterate mothers; 15 respondents have achieved upper primary education, four respondents have accomplished secondary education, two have obtained higher secondary education from their illiterate mothers. From seven primary educated mother generations, four respondents have cleared upper primary education; two respondents have achieved secondary education and one has obtained H.S. education. Moreover, two respondents have become graduates whereas one from a secondary educated mother and the rest from an upper primary educated mother respectively.

In respect of downward mobility or negative mobility, four female respondents have failed to attain upward educational level compared to their mothers i.e. three respondents have remained illiterate while two respondents' mothers have cleared the primary and one respondent's mother have upper primary education. And one female respondent has remained at upper primary level of education while the respondent's mother has cleared secondary education.

Table 8 *Educational mobility between Mother and Respondent*

Education Level		Respondents' Mother (Row)							Total
		7	*6*	*5*	*4*	*3*	*2*	*1*	
Respondents (Female) (Column)	*7*								0(0.0)
	6								0(0.0)
	5								0(0.0)
	4		1(0.83)			1(0.83)			2(1.67)
	3		1(0.83)		1(0.83)	1(0.83)		1(0.83)	4(3.33)
	2			1(0.83)	2(1.67)	4(3.33)	7(5.83)	2(1.67)	16(13.3)
	1			2(1.67)	4(3.33)	15(12.5)	23(19.2)	54(45.0)	98(81.66)
	Total	0(0.0)	2(1.67)	3(2.5)	7(5.83)	21(17.5)	30(25.0)	57(47.5)	120(100.0)

Downwardly mobile Immobile Upwardly mobile

Note: Percentages are shown within bracket

The table 9 gives detail about the educational mobility between respondents' maternal grandmother and female respondents' generation. It is obvious that 53 female respondents (46.08%) are educationally immobile compared to the respondents' maternal grandmothers, at the same time 62 (53.92%) are identified as mobile. Out of the 53 immobile female respondents compared to the respondents' grandmothers, 51 (96.22%) are remained at the illiterate stage and two respondents are immobile only at primary education.

In contrast, out of 62 mobile respondents compared to respondents' grandmothers, 61 (98.38%) are positively mobile in terms of educational attainment where as one female respondent is negatively mobile. Among the 61 upwardly mobile female respondents compared to the respondents' maternal grandmother, 28 female respondents have completed primary education compared to illiterate grandmothers; 20 respondents have achieved upper primary education, five respondents have achieved secondary education, two have obtained higher secondary education and one has become a graduate from their illiterate maternal grandmothers. From three primary educated maternal grandmother generations, one respondent has cleared upper primary education, one respondent has achieved secondary education and one respondent has achieved H.S. education. One female respondent has become a graduate from an upper primary educated maternal grandmother.

In respect of downward mobility, only one respondent has failed to attain upward educational level compared to her maternal grandmother as the respondent has illiterate where as the grandmother has completed primary level of education.

Table 9 *Educational mobility between Maternal Grandmother and Respondent*

Education Level	Maternal Grandmother (Row)							
	7	*6*	*5*	*4*	*3*	*2*	*1*	Total

Respondents (Female) (Column)								
	7							0(0.0)
	6							0(0.0)
	5							0(0.0)
	4							0(0.0)
	3		1(0.87)		1(0.87)			2(1.74)
	2			1(0.87)	1(0.87)	1(0.87)	2(1.74)	1(0.87) 6(5.21)
	1		1(0.87)	2(1.74)	5(4.34)	20(17.39)	28(24.3)	51(44.3) 107(93.04)
	Total	0(0)	2(1.74)	3(2.6)	7(6.08)	21(18.26)	30(26.0)	52(45.21) 115(100.0)

Downwardly mobile Immobile Upwardly mobile

Note: Due to unavailability of education level of 5 grandmothers, 115 observations have been included instead of 120. Percentages are shown within bracket

The table 10 tells about various measures of educational mobility applied on the sampled scheduled tribe female respondents. In a similar manner, here first two measures are the percentages which depict that mobility between respondents' maternal grandmother and respondents' mother generation is very low (19.13%) while mobility between respondents' mother and respondent generation as well as respondents' grandmother and respondent generation are 48.33 percent and 53.91 percent respectively.

Table 10 *Educational mobility over three generation (for Female Respondents)*

Measurement	Grandmother & Mother	Mother & Respondent	Grandmother & Respondent
Percentage Mobile	19.13 (22)	48.33 (58)	53.91 (62)
Percentage Immobile	80.87 (93)	51.66 (62)	46.09 (53)
Total Mobility	1.09 (22)	1.62 (58)	1.72 (62)
Positive Mobility	1.10 (20)	1.64 (54)	1.74 (61)
Negative Mobility	1.00 (02)	1.25 (04)	1.00 (01)
Net Mobility	0.909 (22)	1.45 (58)	1.69 (62)

Note: Values in bracket indicates number of cases

Secondly the measure of immobility between grandmother & mother, mother & respondent and grandmother & respondent are 80.87%, 51.66% and 46.09% respectively. Therefore, it is apparent that immobility is more pronounced among the respondents' mothers generation.

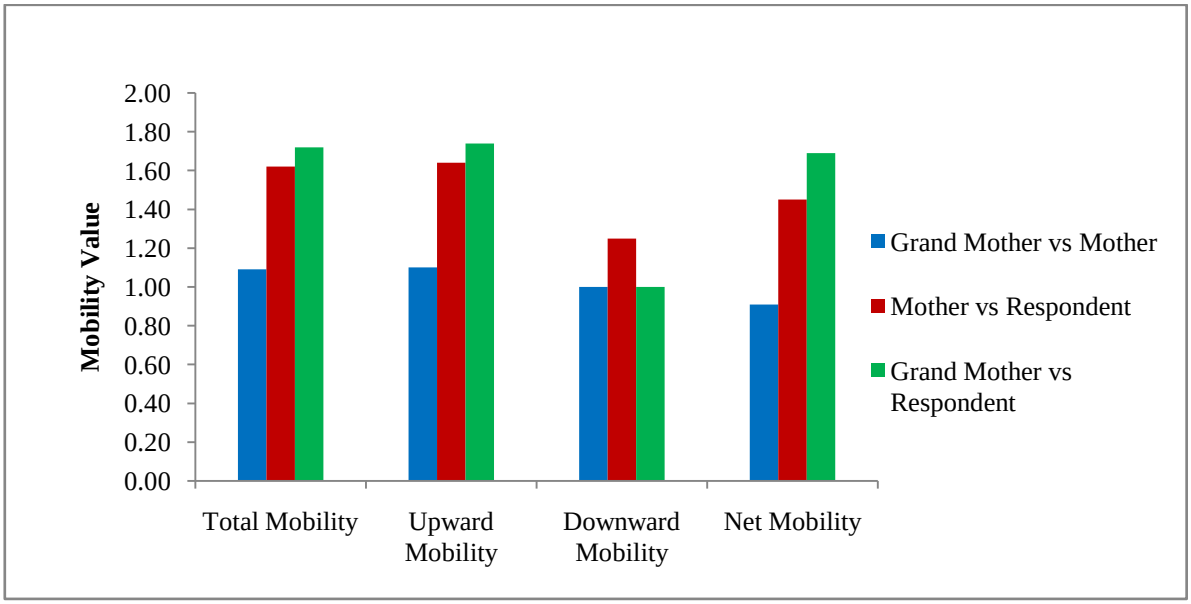


Figure 3 Status of Educational Mobility for Females

The table 10 also points out that the total mobility (M1) is more (1.72) in respect of the mobility between respondents' grandmother and respondent generation and lowest total mobility (M1) can be seen between respondents' grandmother and respondents' mother generation (1.09). The positive mobility (M_{up}) is less (1.10) between respondents' grandmother and respondents' mother generation while it is high (1.74) between the generation of respondents' grandmother and respondent. Conversely the negative mobility (M_{down}) is high (1.25) between the generation of mother and respondents compared to other combination of generations. Finally the net mobility (M2) is healthier (1.69) among the female respondents against the generation of their maternal grandmother compare to the combination of grandmothers versus mothers (0.909) and mothers versus female respondents (1.45).

6 Findings

From the analysis of educational mobility among the male Scheduled Tribes the findings are as follows:

I. Over the three generation of male respondents, grandfathers were mostly remained illiterate (90.86%), illiteracy among fathers was 76.85 percent and illiteracy among the respondents is reduced to 39.87 percent.

II. It is found that compared to the respondents' father, 82 (53.6%) respondents have shown educationally upward and downward mobility where 74 (90.24%) of them have moved upward and 8 (9.75%) have moved down; Out of 74 upwardly mobile male respondents, as many as 60 respondents have fathers with illiteracy; and it is noticeable that a majority of them have moved only one or two step ahead which is from illiteracy to primary (48.33%) and from illiteracy to upper primary (35.00%). On the other hand out of eight (8) downwardly mobile male respondents four (50%) respondents have returned to be illiterate, two (2) respondents (25%) have completed only primary education, whereas their fathers were educated with upper primary level.

III. It is observed that compared to the respondents' grandfathers, 90 (60.0%) respondents are related to mobility and 89 (98.88%) of them moved upward, meanwhile only one moved downward; Out of 89 upwardly mobile male respondents, 81 (91.01%) respondents had/have illiterate grandfathers and 41 (50.61%) have moved one step forward i.e. from illiteracy to primary education; 28 (34.57%) have moved up to upper primary education; 8 (9.87%) and 4 (4.93%) respondents moved up to secondary and higher secondary (H.S) level respectively. And the rest few respondents are distributed in different categories of educational attainment. There is only one case of downward mobility identified (0.66%) which is quite insignificant.

IV. From the analysis of educational mobility among the female Scheduled Tribes the findings are as follows:

V. Over the three generation of female respondents, maternal grandmothers were mostly remained illiterate (89.17%), illiteracy among mothers was 81.67 percent and illiteracy among the female respondents is reduced to 47.50 percent.

VI. It is found that compared to the respondents' mothers, 58 (48.33%) respondents have shown educationally upward and downward mobility where 54(93.10%) of them have moved upward and 4 (6.89%) have moved down; Out of 54 upwardly mobile female respondents, as many as 44(81.48%) respondents have mothers with illiteracy; and it is obvious that a majority of them have moved only one or two step ahead which is from illiteracy to primary (42.6%) and from illiteracy to upper primary (27.77%). On the other hand out of four (4) downwardly mobile female respondents three (75%) respondents have returned to be illiterate and one (1) respondent (25%) backwards to upper primary level from secondary educated mother.

VII. It is observed that compared to the respondents' grandmothers, 62 (53.91%) respondents have been associated with mobility and 61 (98.38%) of them moved upward, meanwhile only one moved downward; Out of 61 upwardly mobile female respondents, a majority of respondents(91.80%) had/have illiterate maternal grandmothers and 28 (45.90%) have moved one step forward i.e. from illiteracy to primary education; 21 (34.42%) have moved up to upper primary education; 5 (8.2%) and 2 (3.28%) respondents moved up to secondary and higher secondary (H.S) level respectively. And among the rest few respondents only two have achieved graduation and others are distributed in different categories of educational attainment. There is only one case of downward mobility reported (0.87%) which is not majorly considerable.

7. Conclusion

Consequently the mobility percentage is higher in the mobility analysis between the respondents' grandparent and respondent generations than two other cases. Meanwhile the immobility percentage is higher in the mobility analysis between respondents' grandparent and respondents' parent generations than the other two cases. It should be understood that educational immobility is not always a negative sign for societal development. When immobility occurs in the higher level of education which is always desirable, indicate comparatively strong educational background. But in respect of Scheduled Tribe population, most of the educationally immobile as well as mobile people are concentrated in the lower level of education i.e. primary and upper primary level. This situation indicates their low

educational attainment in gradually higher level of education which is not satisfactory to be developed.

Therefore the necessity of education particularly for the Scheduled Tribes is quite noticeable. The Scheduled Tribes can be socially mobile through education and it can play an important contribution to uplift the status of Scheduled Tribe. It is established that social background like caste, class, race and sex have a strong effect on the access and performance in education. It is a well documented fact that in India there are provisions, strategies, and formalities to democratize at all levels of education, but in reality here is a successive decline in the enrolment when one moves up from the primary level to the university or P.G. level of education. And this situation is more prominent among the disadvantaged group of people especially among the Scheduled Tribe. The study of intergenerational mobility among Scheduled Tribe also reveals that the pace of educational attainment is though steady but very slow to come up into the mainstream of the society. And another thing is that the respondent generation for both males and females is found more mobile than their parent and grandparent generations.

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Reference

1. Azam, M., & Bhatt, V. (2015). Like father, like son? Intergenerational educational mobility in India. *Demography*, *52*(6), 1929-1959.
2. Lillard, L. A., & Willis, R. J. (1994). Intergenerational educational mobility: Effects of family and state in Malaysia. *Journal of Human Resources*, 1126-1166.
3. Alexander, K. L., & Eckland, B. K. (1974). Sex differences in the educational attainment process. *American Sociological Review*, 668-682.
4. Blake, J. (1985). Number of siblings and educational mobility. *American Sociological Review*, 84-94.
5. Cohen, E. G. (1965). Parental factors in educational mobility. *Sociology of Education*, 404-425.
6. Choudhary, A., & Singh, A. (2017). Are Daughters Like Mothers: Evidence on Intergenerational Educational Mobility Among Young Females in India. *Social Indicators Research*, *133*(2), 601-621.
7. Jalan, J. & Murgai, R. (2008). Intergenerational mobility in education in India. Paper presented in the 5th annual conference of the Indian Statistical Institute, Delhi, India.
8. Hnatkovska, V., Lahiri, A., & Paul, S. (2012). Castes and labor mobility. *American Economic Journal: Applied Economics*, *4*(2), 274-307.
9. Formby, J., Smith, J., & Zheng, B. (2004). Mobility measurement, transition matrices and statistical inference. Journal of Econometrics, 120(1), 181–205.
10. Motiram, S., & Singh, A. (2012). How close does the apple fall to the tree? Some evidence from India on intergenerational occupational mobility. Economic and Political Weekly, XLVII, 40, 56–65.
11. Van De Gaer, D., Schokkaert, E., & Martinez, M. (2000). Three meanings of intergenerational mobility. Economica, 68(272), 591.

