



Case Study

Social Mobility Study: A Case of Intergenerational Educational Mobility by Caste/Ethnicity

Gyanendra Vikram Giree^{1*} 

Department of Population Studies at Ratna Rajya Laxmi Campus, Kathmandu, Constituent of TU, Nepal

Article Information

Received: 12 June 2026
Revised version received: 17 July 2026
Accepted: 20 July 2026
Published: 27 July 2026

Cite this article as:

G.V. Giree (2026) *Int. J. Soc. Sc. Manage.* 13(2-3): 70-80. DOI: [10.3126/ijssm.v13i2-3.97755](https://doi.org/10.3126/ijssm.v13i2-3.97755)

*Corresponding author

Gyanendra Vikram Giree,
Department of Population Studies at Ratna Rajya
Laxmi Campus, Kathmandu, Constituent of TU,
Nepal.
Email: chetanyetig@gmail.com

Peer reviewed under authority of IJSSM
©2026 IJSSM, Permits unrestricted use under the
CC-BY-NC license.



This is an open access article & it is licensed under a
[Creative Commons Attribution Non-Commercial 4.0
International](https://creativecommons.org/licenses/by-nc/4.0/)
(<https://creativecommons.org/licenses/by-nc/4.0/>)

Abstract

Intergenerational educational mobility, that measures the equality of opportunity and outcome in educational attainment and can be studied in many ways, is mainly focused in other regression models although log-linear modelling of ordinal categorical educational levels gives good measure of relative mobility. This study is focused in measuring intergenerational educational mobility in a small village of Parbat district in western Nepal historically inhabited by locally affluent Gurungs who are world famous as Gurkha warriors. Absolute mobility is studied using mobility table and nested log-linear and log-multiplicative models are considered for relative mobility. Increased absolute mobility rate with expansion of educational institutions common in all caste/ethnic groups favors the liberal theory of social mobility but on delving into relative mobility, we find direct relation between the hierarchy of caste/ethnicity and level of social fluidity in which nationally affluent Khas/Arya group is overtaking locally affluent Gurungs. Deprived groups are farther away in the mobility race. The findings do not support situation of equality of opportunity and outcome indicating need of policy reformation in education.

Keywords: social fluidity; absolute mobility; relative mobility; meritocracy; log-linear modelling; log-multiplicative models

Introduction

Social fairness or situation of social justice in a society is reflected in a process termed as social mobility which measures the level of social dynamism or fluidity in a society. Social mobility is the process of change in social position of persons in their own life time or between

generations. It can be studied under different branches of social science such as Population Studies, Sociology and Economics as well as in subjects like Social Work, Political Science, Culture, and Development Studies. It can be classified in many ways. In sociology change in class, status or occupation are more commonly studied under social

¹ Assistant Professor

mobility whereas income, wealth possession or education are more common in economics. There are many dimensions of culture- like economics, aesthetics, technology, social institutions, economy and politics- that make social mobility very rich field of study. Population studies or demography is interested in almost all of the fields. Mobility will be upward, downward or horizontal according as a person rises up in the rungs of social ladder, falls down in it or sifts to another ladder at similar level. According to method of measure, it is divided into two forms- absolute mobility and relative mobility.

Crawford et al (2011) conceive social mobility as akin to equality of opportunity. Li (2020) conceives social mobility as an indicator of economic efficiency, social justice and political efficiency. The concept of social mobility underlies in the idea of fairly equal opportunity, in micro level and from the very childhood (OECD, 2018) to all. Meritocracy attained through education is a central term in mobility literature idealized as necessary to rise up in social position and for better economic gains. Study area of such an immense importance is nearly ignored in less developed countries like Nepal. Educational mobility studies are more often covered by economists and they mostly analyze it with ordinary least square (OLS) regression, multilevel and ordered logistic regression or rank-rank regression. They also produce Great Gatsby Curve. Log-linear modelling is also a very good way of educational mobility analysis as educational attainment can easily be transformed into ordinal categorical data that is rarely used in other studies and this article is dedicated to it.

This article is introductory to social mobility with an example of intergenerational educational mobility by caste/ethnicity in ward number one of *Modi* Rural Municipality in *Parbat* district of Nepal. Education enriches persons with ability to extol in social status with respect to wealth or income, prestige and status. Sen (2003, 2009) mentions education as a major basis of capability expansion and well-being. Global community is highly committed for universal primary education and excess of all children to quality education as well as promise to life-long learning environment. The fourth Sustainable Development Goal of the United Nations is to ensure inclusive and equitable quality education and promoting life-long learning opportunities for all. In Nepal, huge amount of budget has been allotted annually for education. As a result, we can see expansion of schools and institutions for higher education throughout the country in recent decades. Intergenerational educational mobility studies the change in educational status in the generation of son/daughter compared to that of their father/mother. We can explain the outcome of investment in education through the study of educational mobility.

Theoretical framework is presented briefly in next section of this article with review of methods and materials followed by analysis of the data, interpretation of the findings, discussion on the results and conclusion.

Theoretical Framework, Methods and Materials

Social mobility originated in sociological traditions with the work Sorokin (1927, 1959)- first work of Sorokin was published in 1927 which was republished in 1959 that I have referred and expanded to demography (Glass, 1954) with formation of the first formal theory of social mobility (Prais, 1955). Out of the many theories developed, liberal theory of modernism and social mobility propounded by Bell (1972, 1973) and Treiman (1970) plays central role that claims that urban development, educational expansion, development of middle classes and unprecedented material and economic progress will result in worldwide secular trend of increase in rates of social mobility, predominantly in upward direction, in industrial and post-industrial societies. Theory of Endogenous Mobility Regime of Featherman, Jones and Hauser (FJH) (1975) later expanded by Erikson and Goldthorpe (Breen, 2004) as Constant Social Flux (CSF) is the other famous hypothesis that refutes liberal theory of modernism and social mobility and claims identical rates of social mobility in all modern industrial societies.

Clark (2014) in their 'The Son also Rises: Surname and the history of social mobility', Saunders (2010) in 'Social Mobility Myths' and McNamee and Miller (2004) in 'The Meritocracy Myth' are among many others who observed different results than could be expected as the optimistic views of the liberal theory of social mobility. Our tests in this article will be limited to the Liberal Theory of Social Mobility and Modernism and the Constant Social Flux (CSF) hypothesis.

This study is limited to the information on educational status of 444 persons-aged 18 years or more- from the study area, both male and female, and father of the male or mother-in-law of the bride-females. The data on education is collected in a cross-sectional survey. Mean years of schooling is 7.58 years in the study population with standard deviation (σ) of 4.889. The data collected as continuous variable is later converted into ordinal categorical levels merging International Standard Classification of Education (ISCED 1997) (UNESCO, 2006) into four-fold categories. Education of father is used also to analyze mobility of unmarried daughters. Use of information on education of mother-in-law is considered important in analyzing mobility of the bride as they are their heirs and educational mobility of women in patriarchal society is more accurately reflected in change of educational status of the daughter-in-law compared to that of the mother-in-law. The data was collected in the beginning of 2023 cross-sectionally with complete

enumeration of the households consisting of three generations from elder persons aged 70 years or more to their grand children of age 18 years or more. 20 or more years of age is set for study of educational mobility in most of the studies in developed world where more people continue study even after that age but minimum age for educational mobility was set at age 18 years for this study as more than 90 percent of the respondents had left study and only 9.4 percent were students at that age. Age of 18 years is important in many ways as a person is thought as grown up at this age; gets citizenship certificate and driving license; can vote in elections; legally becomes self-responsible and gets right of self-decision related to civic life including entry into occupation of her/his choice.

Educational attainment is classified in 4 categories as illiterate, basic level of educational attainment, secondary and post-secondary level of education and higher education. Persons who cannot read or write at all are classified as illiterates who did not attend any school and informal or non-formal classes. Those who can read and write and have up to 9 years of schooling or those who obtained education through traditional *Gurukul* system or any other informal or non-formal channel are classified at basic level of educational attainment. Those who obtained 10 or more years of formal education but did not get a Bachelor's degree from university are classified in secondary or post-secondary level of educational attainment. Persons who passed internal exams equivalent to secondary level in Army training are also classified in this group. Persons with a Bachelor's or higher degree from universities are classified in the group of higher education.

Caste/Ethnicity in the study area is classified in three groups *Khas/Arya*, Ethnic groups and *Dalits*. No other group of population such as Muslims and *Madhesi* castes are found in the study area. Hill *Brahmins*, *Chhetri*, and *Thakuri* are among *Khas/Arya*. *Gurung* is the main ethnic group of the study area with small number of *Chhantys*, and *Magars*. *Biswakarma*, *Nepali* and *Pariyars* are the *Dalit* castes living in the study area. The sample contains 135 *Khas/Arya*, 149 Ethnic group, and 160 *Dalit* population. This number is supposed to fulfill the requirement (von Eye and Mun, 2013: 11) of sample size for log-linear modelling in 4x4 contingency table.

Two types of mobilities are considered- absolute and relative. Absolute mobility is the measure of total intergenerational change in educational structure of the study population and the direction of change. Mobility table- a 4x4 two-way contingency table or three-way 4x4x3 table in our case- is the main tool to analyze absolute mobility in which educational status of the father/mother-in-law is in the rows and that of the son/daughter-in-law is kept in the columns. Status of the father/mother-in-law is also known as Origin (O) and that of the son/daughter-in-

law is designated as Destination (D). Comparison of marginal cells of the table in the column and row gives us the change in intergenerational educational structure. Sum of the entries in main diagonal gives the percent of stayers that remained in the same group as their father/mother-in-law also known as intergenerational persistence, immobility or social reproduction. Sum of the entries in cells above leading diagonal is upward mobility indicating uplifting of educational status of the son/daughter-in-law compared to their father/mother-in-law. Entries of the cells below leading diagonal sum up to show the rate of downward mobility.

Relative mobility measures the social fairness or state of equality in a society. In case of intergenerational educational mobility considered in this study, relative mobility rate captures the chance of a person born/married in a family with particular educational status of father/mother-in-law being found in different educational statuses on discounting the effects of changes in educational structure (Goldthorpe, 2016). Relative rate of mobility is independent of marginal distribution of educational status in a mobility table.

The most common method to analyze relative mobility is log-linear and log-multiplicative modelling. There are a number of models that measure various effects. These models analyze mobility with odds ratios in their hearts. The simplest model we consider is the independent model that assumes independence of occurrence of falling an item in a cell of the table. Let's consider a IxJ two-way mobility table with I rows and J columns. Then probability of an item falling in a cell (π_{ij}) is given by

$$\pi_{ij} = \pi_i \pi_j \dots\dots\dots (1)$$

Where π_i is the row probability of occurrence and π_j is the column probability of occurrence. If N is the total number of items, the expected frequency in cell ij is given by

$$F_{ij} = N\pi_{ij} = N\pi_i \pi_j \dots\dots\dots (2)$$

On taking log on both sides we get

$$\log F_{ij} = \log N + \log \pi_i + \log \pi_j \quad (3)$$

On parameterizing we get

$$\log F_{ij} = \lambda + \lambda^O_i + \lambda^D_j \dots\dots\dots (4)$$

Where λ is the main effect related to sample size or total number and is also known as intercept. λ^O_i and λ^D_j are known as row and column effects respectively representing origin and destination. In educational mobility, this model assumes that educational attainment of a person is independent of educational status of his/her parents. If the data fits the model, we can conclude that the society is fair and fluid in which every child has equality of opportunity and they achieve the result according to their own labor and

capability. The result can similarly be extended to contingency tables of higher order and in three-way IxJxK table, independence model will look like

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C \dots\dots\dots (5)$$

Where λ_k^C is the layer effect representing caste/ethnicity in our case.

There are number of other models of higher order than model 5 that include interactions between and among row, column and layer and they are called nested models. In three-way contingency table there are 8 other nested models (Agresti, 2019; Anderson, 2019; von Eye and Mun, 2013) out of which three capture only one two-way interaction between row, column or layer and such a model are known as joint independence models, three others capture one additional two-way interactions and are known as conditional independence models, one homogenous association model-also known as constant social flux (CSF) model (Goldthorpe and Mills, 2008)- that captures all the three two-way interactions and lastly the saturated model that fits best in all types of data and includes all of the one-way, two-way, and three-way interactions among rows, columns and layers. The models look like

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ij}^{OD} \dots\dots (OD, C) - \text{Joint independence}$$

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ik}^{OC} \dots\dots (OC, D)$$

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{jk}^{DC} \dots\dots (DC, O)$$

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ij}^{OD} + \lambda_{jk}^{DC} \dots\dots (IJ, JK) - \text{Conditional}$$

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ij}^{OD} + \lambda_{ik}^{OC} \dots\dots (IJ, IK)$$

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ik}^{OC} + \lambda_{jk}^{DC} \dots\dots (IK, JK)$$

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ij}^{OD} + \lambda_{jk}^{DC} + \lambda_{ik}^{OC} \dots\dots\dots (CSF \text{ model})$$

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ij}^{OD} + \lambda_{jk}^{DC} + \lambda_{ik}^{OC} + \lambda_{ijk}^{ODC} \dots\dots\dots (\text{Saturated model})$$

Out of these nested models only seven, except the last one that fits all types of data, have been tested and it has been determined that which of the models fits best and interpreted the nature of association that describes our data best of all. To compare mobility rates by caste/ethnicity log-

multiplicative (Xi, 1992) or uniform difference (UNIDIFF) model (Breen, 2004) has been tested that assumes that there is same pattern of association between origin and destination in all the caste/ethnic groups compared but the strength of association differs. The model looks like

$$\log F_{ijk} = \lambda + \lambda_i^O + \lambda_j^D + \lambda_k^C + \lambda_{ik}^{OC} + \lambda_{jk}^{DC} + \phi_k X_{ij} \dots\dots\dots (6)$$

Where ϕ_k represents strength of association between groups and X_{ij} is the common pattern of association between origin and destination.

Results/Findings in Absolute Mobility

Absolute mobility and structure of educational attainment between generations by caste/ethnicity can directly be observed in a mobility table as shown below in Table- 1. Entries in the leading diagonal are the stayers. In this case, where educational level is in ascending order, below the diagonal are the movers in downward direction and those, above leading diagonal, are the movers in upward direction. In *Khas/Arya*, for example, 11.1 percent respondents who were born to illiterate father/mother-in-law remained illiterate, 19.3 percent respondents born to father/mother-in-law with basic education also attained basic education and 11.9 percent attained secondary education as their father/mother-in-law had attained. In total there are 42.2 percent of stayers among *Khas/Arya*. From the table we can find 0 percent of downward mobility and 57.8 percent have moved up. Absolute mobility rates of caste/ethnic groups are presented in Fig. 1 & Table 1. Total upward rate of absolute mobility is 63.8 percent with 0.4 percent of downward mobility and 35.8 percent of stayers. Non-movers or stayers form rate of social reproduction or persistence.

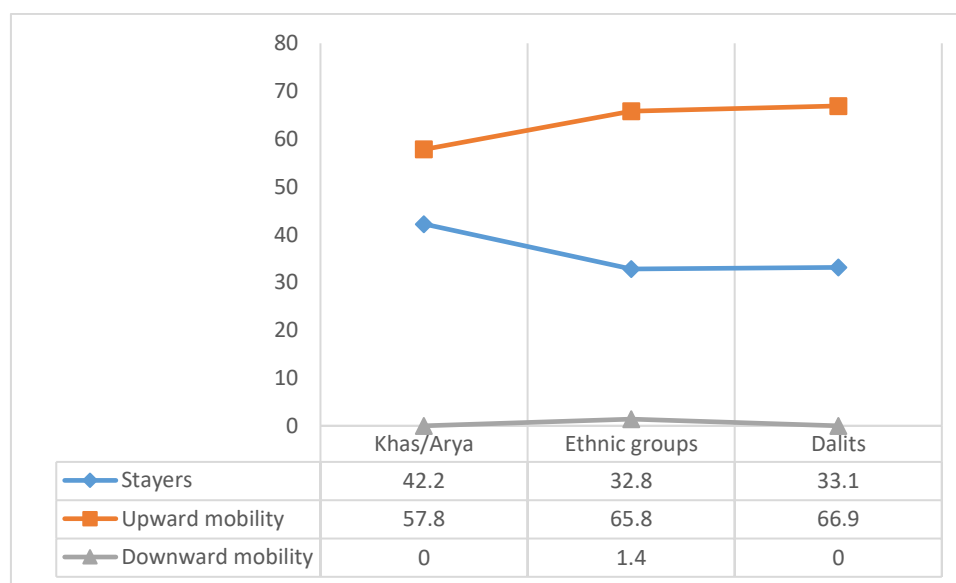
Fig. 1 shows that social reproduction rate or percent of stayers is highest in *Khas/Arya* followed by *Dalits*. Upward mobility is highest among *Dalits* (66.9%) followed by Ethnic groups. *Khas/Arya* is the group with lowest rates of mobility. Downward mobility is observed in small percent only in Ethnic group of population.

Change in the structure of educational attainment is the next important information that mobility table provides us. Out of 444 study population, fathers/mothers-in-law of 42.3 percent were illiterate which reduced to 13.3 percent in the generation of sons/daughters-in-law. Similar changes in other educational status in total and by caste/ethnicity is presented below in figures numbered from 2 to 5.

Table 1: Educational mobility of the study population by caste/ethnicity

Caste/ethnicity	Educational status of the father/mother-in-law	Level of education of the respondent				Total percent	Number
		Illiterate	Basic	Secondary and post-sec.	Higher		
Khas/Arya	Illiterate	11.1	19.3	9.6	2.2	42.2	57
	Basic	0	19.2	21.5	3.0	43.7	59
	Secondary and post-sec.	0	0	11.9	2.2	14.1	19
	Total	11.1	38.5	43.0	7.4	100.0	135
Ethnic groups	Illiterate	10.7	14.1	5.4	0.7	30.9	46
	Basic	0	14.7	29.5	5.4	49.6	74
	Secondary and post-sec.	0	0.7	7.4	10.7	18.8	28
	Higher	0	0	0.7	0	0.7	1
	Total	10.7	29.5	43.0	16.8	100.0	149
Dalits	Illiterate	17.5	30.0	4.4	1.3	53.1	85
	Basic	0	12.5	29.4	1.3	43.1	69
	Secondary and post-sec.	0	0	2.5	0.6	3.1	5
	Higher	0	0	0	0.6	0.6	1
	Total	17.5	42.5	36.3	3.8	100.0	160
Total	Illiterate	13.3	21.4	6.3	1.4	42.3	188
	Basic	0	15.3	27.0	3.2	45.5	202
	Secondary and post-sec.	0	0.2	7.0	4.5	11.7	52
	Higher	0	0	0.2	0.2	0.5	2
	Total	13.3	36.9	40.5	9.2	100.0	444

Source: Field Survey, 2023.

**Fig. 1:** Absolute mobility rates by caste/ethnicity (percent)

Change in the structure of educational attainment is the next important information that mobility table provides us. Out of 444 study population, fathers/mothers-in-law of 42.3 percent were illiterate which reduced to 13.3 percent in the generation of sons/daughters-in-law. Similar changes in other educational status in total and by caste/ethnicity is presented below in figures numbered from 2 to 5.

Fig. 2 is about the change in total study population in which respondents have upgraded their educational status compared to their parents. Except percent of illiterate, percent in basic education has also decreased while percent

of population with secondary and post-secondary education and higher education has increased in the generation of son/daughter-in-law. By caste/ethnicity (Fig. 3-5), overall change is nearly the same as in total population but the rate of progress is slightly different from each other. Educational status in the generation of father/mother-in-law was slightly better in Ethnic groups compared to that of *Khas/Arya* and *Dalits* but *Khas/Arya* has progressed more than *Dalits* in the generation of son/daughter-in-law. More detailed assessment will be obtained from analysis of relative mobility in next section.

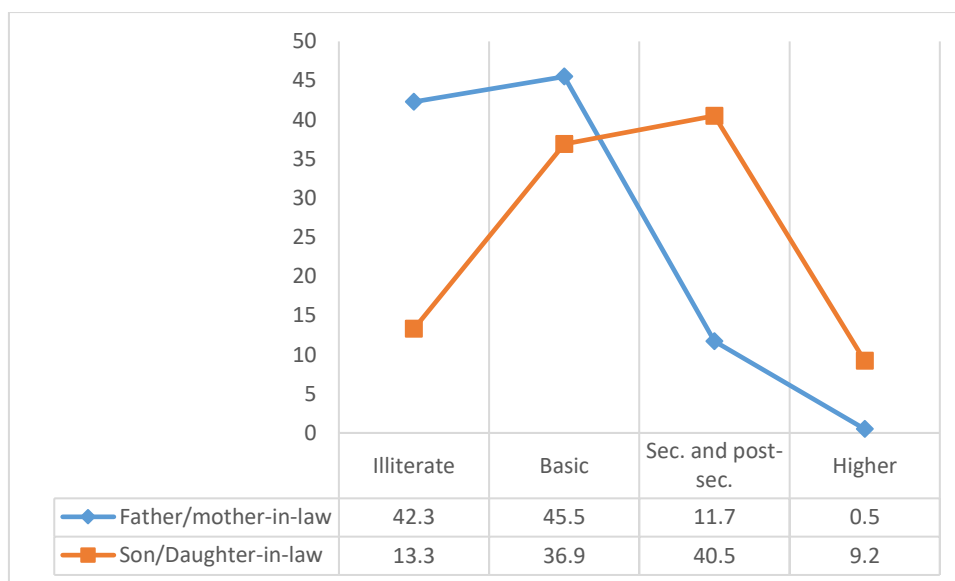


Fig. 2: Change in Structure of Educational Attainment of Total Study Population (percent)

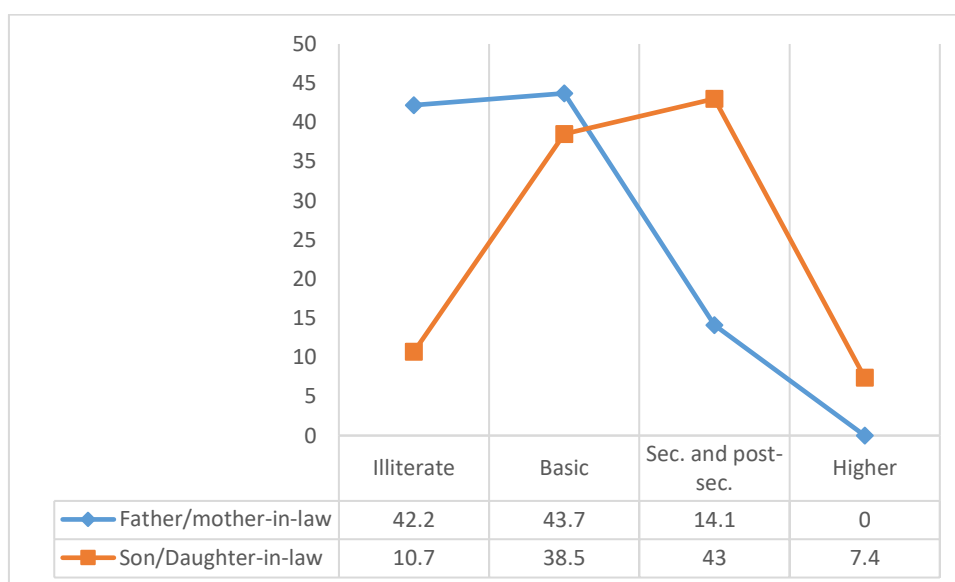


Fig. 3: Change in Educational Status of Khas/Arya (percent)

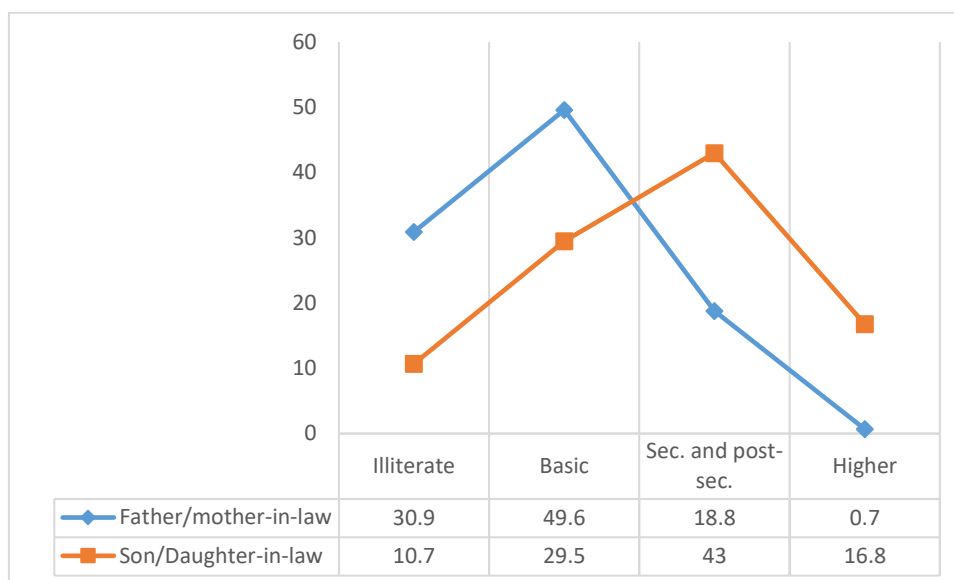


Fig. 4: Change in Educational Structure of Ethnic Group (percent)

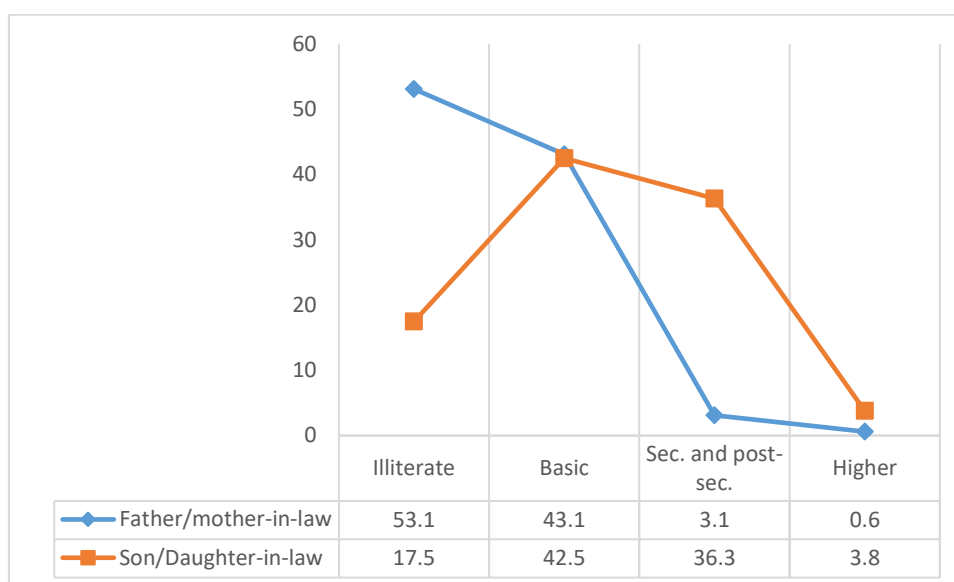


Fig. 5: Change in Educational Structure in Dalits (percent)

Relative Mobility by Caste/Ethnicity and Log-linear Modelling

Results of log-linear models tested to analyze relative rates of mobility are presented in table 2. The main model selection criteria, mostly used, is the likelihood ratio test statistics (G^2) calculated as:

$$G^2 = 2 \sum_i O_i \log \left(\frac{O_i}{E_i} \right)$$

Where O_i is the observed frequency and E_i is the expected frequency in a cell for the model selected and is related to Chi-square distribution with better decomposition characteristics than X^2 . G^2 compares the log likelihood of

two nested models. G^2 between saturated model and a simpler model is known as null deviance. P value is also associated with G^2 . A high p-value ($P > 0.05$) indicates a good fit.

Similarly, Akaike Information Criteria (AIC), guided by the concept of parsimony and measuring the amount of information lost on using a particular model to describe the information present in the data, is considered in selecting a model. AIC calculated based on the overall G^2 is defined as

$$AIC = G^2 + 2d$$

Where d is the number of degrees of freedom of the model. Smaller value of AIC indicates the model with the best compromise between precision and complexity.

On testing the data for independence, we test the first model of independence and see G^2 value of 304.059 with 39 degrees of freedom which is too high for fit indicating association among the variables and we reject it. There is 242.037 points of deviance improvement in joint independence model (OD, C) with a loss of degree of freedom of 9 points and G^2 value stood at 62.023 at degree of freedom 30 but is still far from acceptable level. This model assumes both origin and destination be independent of caste/ethnicity and the improvement in test statistics, although not acceptable, indicates decreasing influence of caste/ethnicity in educational attainment. Next two models of joint independence perform worse than the model of joint independence of origin and destination to caste/ethnicity.

Next models tested are the conditional independence models that assume independence of two variable given the third variable. Out of the three such models, model (OD, OC) that assumes independence of destination and caste given an origin fits better than the other two with $G^2 = 30.293$ at Df 24 which is acceptable at $\alpha = 0.05$ but p-value is insignificant. Whatever be the origin of persons with respect to educational status, they are attaining educational statuses irrespective of their caste/ethnicity. The best fit among nested linear models is in Constant Social Flux (CSF) or homogenous association model (OD, OC, DC)

that consists of all the three two-way interactions of the three variables involved with significant p-value and acceptable value of G^2 at $\alpha = 0.05$. This model assumes that there is no significant difference in level of social fluidity among the caste/ethnic groups under study. Again, AIC value is high in this model too.

Uniform Difference (UNIDIFF) model fits further better than the CSF model with $G^2 = 12.46983$ at Df = 16 with p-value = 0.7110539 and AIC = -85.06336. Assumption of this model is that there is ordered differential change in social fluidity among the groups studied. The value of layer coefficient (ϕ_k) compares the strength of social fluidity among the groups relative to a group taken as the base. Value of the layer coefficient (ϕ_k) < 1 shows increase in social fluidity and its value > 1 indicates decreasing social fluidity (Breen, 2004: 35). Here in the case study, social fluidity of *Khas/Arya* taken as base is 1 and the value of ϕ_k has increased steadily in Ethnic groups and *Dalits* with 1.527 and 2.445 respectively indicating poor condition of social mobility in Ethnic group population and *Dalits*. Absolute mobility rates and educational attainment in Ethnic groups were better than that of *Khas/Arya* and *Dalits* also look not much far away from them in absolute terms but *Khas/Arya* is doing better relatively. This is the strength of relative measure and log-linear modelling that captures the dynamic process occurring in the deep heart of society. Uniform difference in relative mobility is also shown in Fig. 1.

Table 2: Analysis of Deviance

Model	Resid. Df	Resid. Dev (G^2)	Δ Df	Deviance (ΔG^2)	Pr (>Chi)	AIC
O, D, C	39	304.059				440.86
OD, C	30	62.023	9	242.037	<2e-16 ***	216.83
OC, D	33	272.330	-3	-210.307	<2e-16 ***	421.13
CD, O	33	281.291	0	-8.961		430.09
OD, OC	24	30.293	9	250.998	<2e-16 ***	197.1
OC, CD	27	249.561	-3	-219.268	<2e-16 ***	410.36
OD, DC	24	39.254	3	219.268	<2e-16 ***	206.06
CSF	18	21.926	6	8.367	0.2124	200.73

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

UNIDIFF Deviance: 12.46983, p-value = 0.7110539, Pearson chi-squared: 11.15719, p-value = 0.6969358, Dissimilarity index: 3.632843%, Residual df: 16, BIC: -19.53017, AIC: -85.06336

Layer coefficients (UNIDIFF model)

	Exp (Estimate)	Estimate	Std. Error	Quasi SE	Pr(> z)
Khas/Arya	1.000	0.000	0.000	0.28	NaN
Ethnic groups	1.527	0.424	0.340	0.19	0.2132
Dalits	2.445	0.894	0.345	0.20	0.0096**

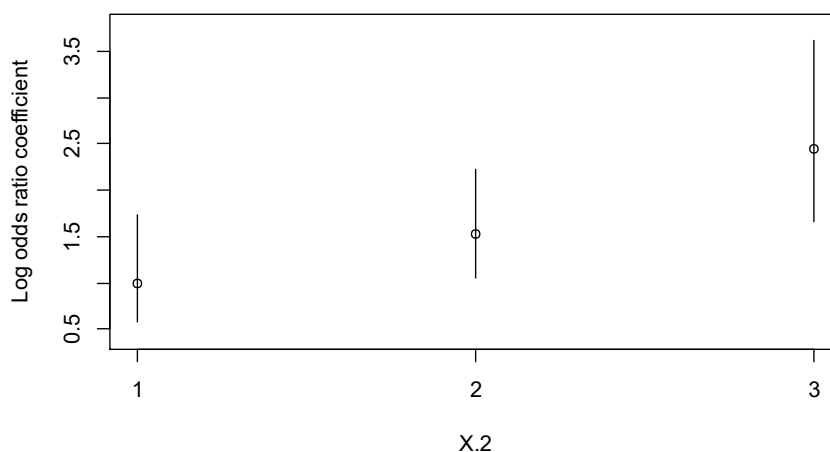


Fig. 6: layer coefficients (ϕ_k) of Unidiff model of educational mobility by caste/ethnicity.

Discussion and Conclusion

Focus of this article was, firstly, on theory and methods of social mobility followed by a case study in a rural village of Nepal inhabited historically mainly by *Gurungs*, an ethnic community world famous as brave *Gurkha* warriors, but now experiencing very high rate of out-migration and emigration. Number of *Gurungs* is now smaller than number of *Dalits* among study population. The methods introduced are rarely used not only in under-developed countries like Nepal but also in developed as well as in developing regions to analyze educational mobility. That makes comparability of the results with other findings obscure, specially, relative mobility. Log-linear and log-multiplicative models give more clear picture of relative mobility for ordinal categorical data than the other measures of regression or correlations although they are more compatible for quantitative analysis of ratio level data.

High rates of absolute upward educational mobility and changing structure of educational attainment observed in this study indicate progress. Establishment of schools in the study area and community college in neighboring ward in recent past has increased educational opportunities. A shift from illiterate to basic education and secondary education is prominent in the study population. Although the study area is not part of modern industrialized country, the results resemble the hypothesis of liberal theory of social mobility.

But this observation is similar to that observed globally in least and middle-income countries (LMICs) (Hossain & Beretta, 2025). There is no downward mobility to illiterate group.

Former study of educational mobility in Nepal (Tiwari et.al, 2016) that suggests 62 percent upward mobility, 29.8 percent stay rate and 8.2 percent rate of downward mobility with 7-fold classification of education is lower than the rates observed at 64 percent upward mobility, 35.8 percent stay rate, and only 0.2 percent of downward mobility in total with only 4-fold classification of education in this study. But the mobility rates were not calculated from mobility tables in the former study as we did in this study and method of calculation is not clearly illustrated. Out-flow mobility table with row totals had been calculated. On comparing these mobility rates with findings worldwide, we can note Leone (2019) who compares mobility in 148 countries with data between 1940-1989 and shows upward mobility of 30 percent on average in low-income countries and 60 percent in high and middle-income countries for the cohorts born in 1980s. Bottom persistence or stay rates in lower level of education is reported in lower rates worldwide while top persistence rate or 'intergenerational persistence rate' is greater in low-income countries (51%) compared to 47 percent in middle-income and 42 percent in high income

countries. Our findings are better than the findings of this study.

By caste/ethnicity, educational status of Ethnic groups is better in both generations followed by Khas/Arya in absolute terms. Upward mobility rates are higher in Ethnic groups and *Dalits* compared to *Khas/Arya*. There are more stayers in *Khas/Arya* than in Ethnic groups or *Dalits*. We may assume that Dalits and Ethnic groups are doing better than *Khas/Arya* based on absolute mobility rates. Division of the society by caste/ethnicity is now limited mainly to India and Nepal. Krishna and Kumar (2024) report similar findings in India related to absolute mobility in which Scheduled Castes (SCs) and Scheduled Tribals (STs) have covered the gap in lower level of education although they are still behind in higher achievement.

This study has not noticed any other study of educational mobility with log-linear modelling. There is improvement with rising complexity of the nested models. Reducing influence of caste/ethnicity in educational attainment, independence of caste/ethnicity in educational attainment of son/daughter-in-law for given level of education of their father/mother-in-law are noticeable. Near to fit of constant social flux (CSF) model on comparing mobility among caste/ethnic groups indicates that progress in education observed in educational attainment is near to equal among caste/ethnic groups. But better fit of uniform difference (UNIDIFF) or log-multiplicative model over constant social flux (CSF) model shows that there is still difference in social fluidity among the caste/ethnic groups. *Khas/Arya* group, that had lowest level of absolute mobility, has highest rate of relative mobility or fluidity. That means *Khas/Arya* have shuffled most between the levels or rungs of educational attainment, specially towards higher levels from lower ones. Krishna and Kumar (2024) report similar evidences in relative mobility in India where Scheduled Castes (SCs) and Scheduled Tribes (STs) have lower gains and widening disparities.

Finally, we can conclude that although this study is limited to cross-sectional data of a small area and sample and the findings cannot be generalized for the whole country, increase in educational mobility observed is in much favor to higher castes that were privileged nationally in overall but not in the study area. Many of the locally affluent *Gurungs* have drained to larger cities or abroad and the remaining ones in the area are lagging behind *Khas/Arya*. *Dalits*, so called lower castes, are the ones that have benefitted least. Such a finding indicates urgency in review of policies that are related to social justice and overall progress of societies.

References

Agresti A (2019) *An Introduction to Categorical Data Analysis*, Third edition. Hoboken, NJ: John Wiley & Sons. ISBN 9781119405276 (Adobe PDF)

- Anderson CJ (2019) Log-linear Models for Contingency Tables (Edps/Psych/Soc.589). Department of Educational Psychology, University of Illinois.
- Bell DC (1972) On meritocracy and inequality. *The Public Interest* **29**: 29-68.
- Bell DC (1973) *The Coming of Post-Industrial Society*. Basic Books.
- Breen R (2004) Statistical Methods of Mobility Research (Chapter 2). In Breen R (2004) *Social Mobility in Europe*. <https://doi.org/10.1093/0199258457.003.0002> Pages 17–36
- Christensen R (1997) Log-linear Models and Logistic Regression, Second Edition. Springer Texts in Statistics. Springer.
- Clark G (2014) *The Son Also Rises: Surnames and the History of Social Mobility*. Princeton University Press.
- Crawford C, Jhonson P, Machin S and Vingoies A (2011) Social Mobility: A Literature Review, *Seminal paper*. Department for Business, Innovation and Skill, UK. <http://www.bis.gov.uk>
- Erikson R and Goldthorpe JH (2002) Intergenerational Inequality: A sociological perspective. *Journal of Economic Perspectives*, Volume 10, Number 3, pp. 31-44. DOI: <https://doi.org/10.1257/08953300278695>
- Featherman D, Jones F, and Hauser R (1975) Assumptions of mobility research in the US: The case of occupational status. *Social Science Research* **4**: 329–360.
- Glass DV (Ed) (1954) *Social Mobility in Britain*. Routledge Publications. https://books.google.com.np/books?hl=en&lr=&id=QYqAAAAQBAJ&oi=fnd&pg=PP1&ots=ElH-vgVOLj&sig=IU2iGunbvHnW09tGPYG8rVOWEDU&redir_esc=y#v=onepage&q&f=true Accessed on 2.37 PM, 7/20/2021
- Goldthorpe JH (2016) Social class mobility in modern Britain: changing structure, constant process. *Journal of the British Academy* **4**: 89–111. DOI: <https://doi.org/10.5871/jba/004.089>
- Goldthorpe JH and Mills C (2008) Trends in Intergenerational Class Mobility in Modern Britain: Evidence from National Surveys, 1972–2005. *National Institute Economic Review* **205**: 83-100.
- Hossain M and Beretta M (2025) Intergenerational educational mobility during the twentieth century. *Population and Development Review* **51**(3): 1239 - 1263. <https://doi.org/10.1111/padr.70020>
- Krishna A and Kumar S (2024) Social Mobility and Opportunity in India: A Review of the Academic Literature. *Economic and Political Weekly*, Vol. LIX, No. 51, Dec. 21, 2024.
- Leone T (2019) Intergenerational Mobility in Education: Estimates of the Worldwide Variation. *Occasional Paper 2, Overcoming Inequalities in a Fractured World: Between Elite Power and Social Mobilization*, The United Nations Research Institute for Social Development (UNRISD).

- Li Y (2020) Social mobility in China: A case study of a quantitative sociological approach to social mobility research in the Global South. WIDER Working Paper, No. 2020/4, ISBN 978-92-9256-761-3, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki, <https://doi.org/10.35188/UNU-WIDER/2020/761-3>
- McNamee SJ and Miller RJ Jr (2004) *The Meritocracy Myth*. Lanham, Rowman & Littlefield Publishers INC.
- Nunn A, Johnson S, Monro S, Bickerstaffe T, Kelsey S (2007) Factors influencing social mobility: Department for work and pensions research report 450.
- OECD (2010) A Family Affair: Intergenerational Social Mobility across OECD Countries, *Economic Policy Reforms: Going for Growth, Part II, Chap. 5*.
- OECD (2018) A broken social elevator? How to promote social mobility. *COPE Policy Brief*, <http://oe.cd/social-mobility-2018>.
- Prais SJ (1955) The formal theory of social mobility. *Population Studies: A Journal of Demography*. 9(1): 72-81. <http://dx.doi.org/10.1080/00324728.1955.10405033>
- Saunders P (2010) Social Mobility Myth. Institute for the Study of Civil Society.
- Sen A (2009) Capability and well-being. In: Nassbaum M and Sen A (eds.) *The Quality of Life*. Clarendon Press.
- Sorokin PA (1959) Social and Cultural Mobility. *Free Press* 4: 99-145
- Tiwari S Shidiq AR and Balcazar CF (2016) Mobility and Pathways to the Middle Class in Nepal. Policy Research Working Paper 7824. World Bank Group, Poverty and Equity Global Practice Group.
- Treiman DJ (1970) Industrialization and social stratification. In Laumann E (ed.) *Social Stratification: Research and Theory for the 1970s*. Indianapolis: Bobbs-Merrit
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (2006) International Standard Classification of Education (ISCED)-1997. UNESCO-UIS, 2006.
- von Eye A and Mun EY (2013) Log-linear Modeling: Concepts, Interpretation, and Application. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Xie Y (1992) The Log-multiplicative Layer Effect Model for Comparing Mobility Tables. *American Sociological Review*, 1992, vol. 57 (June:380-395).