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Internal Migration: Determining Factors and Socio-Economic Status of Non-Family Reason Migrants

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Abstract

Internal migration refers to the movement of people from one region to another region within a country, and it can be categorized into family and non-family-reasons for migration. This paper examines the significant factors and socio-economic characteristics of non-family-reason internal migration, using data from Nepal Living Standard Survey (2010/11), a national household survey. This paper fits multiple logistic regression models for the response variables non-family-reason internal migration, and internal migration. The study shows that while the population of non-family-reason internal migrants is relatively small, they cover a large proportion of the wealthiest quintile in the welfare distribution, and their socio-economic indicators are better than other populations.

Keywords

Household Survey, Internal Migration, Logistic Regression, Migration, Nepal, Odd Ratio

1. Introduction

The movement of people from one geographic region to another geographic region is a worldwide phenomenon. This movement can occur for various reasons, from family reasons to natural disasters or unfavorable socio-economic environments. Migration brings changes in the population and demographics of specific geographic regions. The change in population and demographics could bring a

change in socio-economic indicators of the regions, and migration could be one of the significant factors for the changes. While migration can drive economic growth and exchange of knowledge/technologies, it also poses social challenges that can lead to social tensions, integration challenges, and competition for resources in host communities.

Based on geographic boundaries, migration is categorized into internal and external migration. Internal migration refers to the movement of people within a country and external migration refers to the movement across national borders. So, internal migration does not affect the total population of a country, while external migration does have such effects. The volume and direction of migration are related to the gaps between the socio-economic pull and push factors, population sizes, distances between origin and destination regions, and urbanization. Some of the important push factors are unemployment, economic underdevelopment, low wages, discrimination based on religion, poor urban life, and low career expectations. Similarly, some of the important pull factors for migration are a better economic perspective, higher salaries, better living standards, lack of discrimination, career-building opportunities, and a greater demand for labor and skills (Ghosh, 1985). Since migration could bring changes in the socio-economic dynamics of the regions, understanding its dynamics is crucial for the development of the regions.

A large proportion of the internal migration in Nepal is due to family reasons such as marriage or a dependent child following parents or guardians. Other internal migration reasons are non-family reasons, such as easier lifestyle, job search, education, business, or natural disaster. The analysis of the second Nepal Living Standards Survey, 2003/04 data showed that the non-family-reason internal migration (NFIM) population had a different socio-economic profile in comparison to other populations. It showed that the NFIM population had a higher literacy rate, less poverty rate, a lower percentage of households with agriculture land for farming, and a lower percentage of households living in their own dwelling as compared to the other population. It also showed that though the NFIM population was small, within a consumption quintile, it covered a good proportion in the top richest quintile both in urban and rural areas (Manandhar, 2023, 2024).

In this paper, we present the analysis of the internal migration and NFIM from the third Nepal Living Standards Survey (NLSS) 2010/11 and explore changes in factors and socio-economic indicators after seven years from 2003/04. To study the NFIM population, we partitioned the internal migration population (*partitioning the reasons of leaving the previous place and moving to the current place*) into two blocks FIM (family-reason internal migration) and NFIM (non-family-reason internal migration) populations, and focused on the NFIM population. We explored the differences in socio-economic characteristics between the NFIM population and other populations. A consumption quintile is used to examine the welfare distribution status. We fit multiple logistic regressions to find the significant factors for NFIM and internal migration with socio-economic, geographic,

and demographic covariates. Multiple logistic regression has been widely used in various fields to model binary response variables, including the study of internal migration (Kalemba et al., 2022; Ruhnke et al., 2022; Latkin et al., 2021; Njeru et al., 2020).

The paper is organized as follows. In Section 2, we discuss the source of data and the statistical data analysis method. In Section 3, we present the results of the data analysis, and Section 4 has a conclusion and discussion.

2. Data and Method

2.1. Data Source

We use the data from the third Nepal Living Standards Survey (abbreviated as NLSS) 2010/11, a national household survey. The NLSS collects migration information from all individuals five years or older. This survey defines an internal migrant as one who crosses the political boundary of a village development committee or Municipality. If a person had a multiple migration history, then the last movement was the one considered. The NLSS has data from 5988 households with a total of 28,474 individuals; 25,617 sampled individuals were aged five and above (*see CBS, Methodology, Nepal Living Standards Survey* 2010/11, Vol. 1). In NLSS, 36.9% were ever migrated population, 32.49% internal migrants, and 7.04% NFIM population, see **Figure 1**.

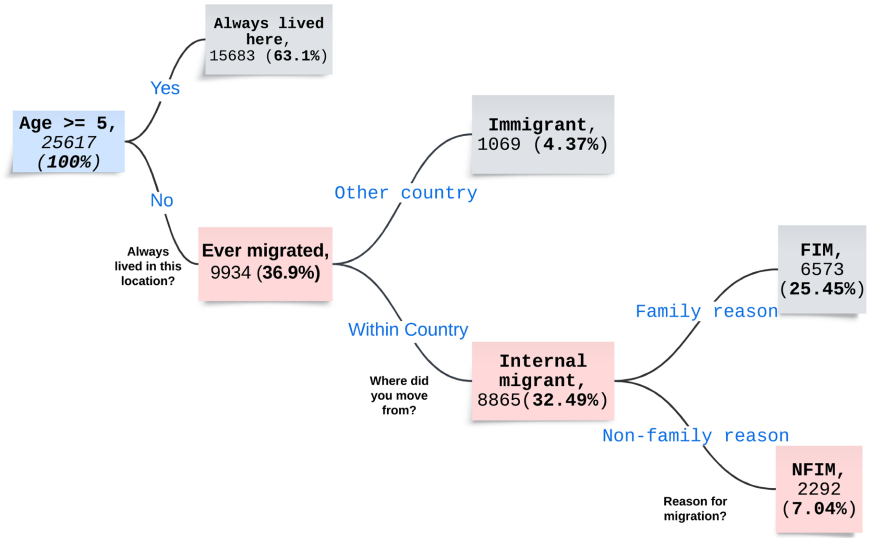

Figure 1. Population distribution and migration, age ≥ 5, NLSS 2010/11.

NLSS followed the Living Standards Measurement Survey (LSMS) methodology developed and promoted by the World Bank (WB). The data was collected using stratified random sampling. This survey collects data on different characteristics, including demography, housing, education, migration, employment, consumption, income, housing, labor markets, and education. One of the important socio-economic welfare variables, poor/non-poor was defined by a

threshold of the poverty line. The direct responses indicators and the calculated indicators from the survey will provide estimated socio-economic status of the population.

2.2. Geography and Demography

A large portion of the population of Nepal resides in rural areas. The total urban population was 17.1% (4,523,820 count) across 58 municipalities, population census of 2011. Nepal has a very high degree of geographic diversity; it is divided into three ecological belts: mountain (altitude 4877 - 8848 m), hill (altitude 610 - 4877 m), and terai (altitude 610 - 4877 m). The mountain, hill, and terai belts include 35.2%, 41.7%, and 23.1% of the total land area (147,181 square kilometers); 6.7%, 43.0%, and 50.3% of the total population (26,494,504); and 34, 186, and 392 people per square kilometer (excluding area occupied by water) population density respectively (Pathak & Lamichhane, 2014).

2.3. Method

We fit multiple logistic regression models to identify the significant factors for binary variables NFIM and internal migration. For comparison purposes, we fit these models with the same eleven covariates. The multiple logistic regression model for binary response variable y with k independent variables $x_1, x_2, \cdots, x_k$ is given as

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_k x_k.$$

Equivalently, we can also rewrite this as $\frac{p}{1-p} = e^{\beta_0+\beta_1 x_1+\beta_2 x_2+\cdots+\beta_k x_k}$, where $p = \text{Prob}\left(y = 1 \middle| x_1, x_2, \cdots, x_k\right)$ is the probability of success and the odds of success is $\frac{p}{1-p}$.

We present survey weighted summary statistics of socio-economic indicators by migration status (ever migrated or NFIM). A welfare indicator consumption quintile, five partitions of an ascending ordered per capita consumption data, is used. The first partition includes the bottom twenty percent (*poorest*) population in ascending ordered per capita consumption data, the second partition includes 21% to 40% population, and so on, the fifth partition includes the top twenty percent of the population (*richest*).

3. Statistical Results

3.1. Migration

Figure 2 shows that there were 36.9% ever migrated population in Nepal, and there was a much higher proportion of females than males. The higher percentage seen for the female population was due to marriage (a family reason). This table also shows that there was an increase in the proportion of the ever migrated pop-

ulation as the consumption quintile index increased from the first (poorest) quintile to the fifth (richest) quintile. This increase is more distinctly seen for the males.

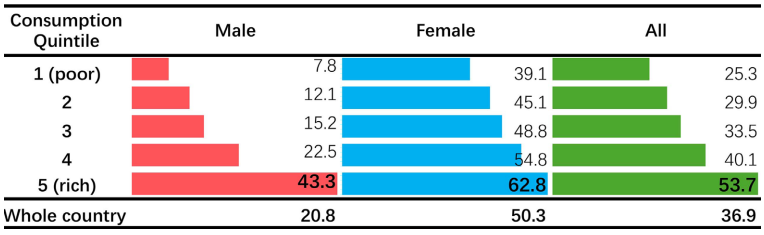

Figure 2. Ever migrated population by consumption quintile and gender (in %). Source: Nepal Living Standards Survey 2010/11, Vol-1, Table 8.1, CBS, Nepal.

The reasons for ever migration were either family reasons or non-family reasons. The family reasons for migration were 79.4% and non-family reasons 20.6% as shown in Table 1. There is a tradition of the bride moving to the groom's house after their marriage, and therefore the migration due to marriage is highest (52.8%) followed by dependent children joining their family members (21.2%). For non-family reasons for migration, the easier lifestyle (7.0%) was the highest followed by educational training (4.9%) and looking for work (3.5%). Table 1 also showed that there was an increasing trend in percentages as the consumption quintile rose from the first (poorest) quintile to the fifth (richest) quintile for non-family reasons: easier lifestyle, work search, education/training, and starting a new business/job. While for marriage as the migration reason (*the main family reason of ever migration*), the percentage for the ever migrated trend was decreasing as the consumption quintile increased.

Table 1. Ever migrated population by Reason for migration for ever migrated population (in %).

	Family reason of migration			Non-Family reason of migration								Total
Consumption Quintile	Marriage	Following Family	Other family reasons	Easier life style	Looking for work	Education/ Training	Start new business/ job	Job transfer	Conflict	Natural disaster	Other	
1 (poor)	75.8	14.8	2.5	3.56	0.9	0.97	0.27	0	0.5	0.14	0.6	100
2	67.8	16.8	4.0	5.02	2.23	1.68	0.53	0.05	0.27	0.79	0.79	100
3	63.3	15.1	5.7	7.03	2.98	2.14	1.34	0.02	0.44	1.06	0.83	100
4	51.7	23.0	5.7	8.14	3.42	3.11	2.31	0.34	0.89	0.64	0.86	100
5 (rich)	30.0	28.5	7.0	8.63	5.71	11.05	5.28	1.6	0.41	0.4	1.51	100
Whole country	52.8	21.2	5.4	7	3.53	4.86	2.49	0.58	0.51	0.6	1.01	100

Family reason = 79.4%; Non-Family reason = 20.6%.

3.2. NFIM Population

Table 2 shows the distributions of NFIM and all populations by their birth belt and current belt. In the whole population, about half (48.7%) were in terai, and within the NFIM population, 51.4% are in terai belt. Table 2 also shows that, of

all individuals who were born in the terai belt 96.7% still had their usual place of residence in the terai belt.

Table 2. Cross table of birth belt and current belt of an individual for all and NFIM population (in %).

		Current Belt							
		All population				NFIM population			
	Belt	Mountain	Hill	Terai	Total	Mountain	Hill	Terai	Total
Birth Belt	**Mountain**	**82.82**	8.96	8.21	100	**18.62**	49.3	32.08	100
	Hill	0.39	**87.37**	12.24	100	0.12	**53.96**	45.92	100
	Terai	0.14	3.2	**96.66**	100	1.03	27.25	**71.72**	100
	Total	**7.05**	**44.22**	**48.73**	**100**	**1.86**	**46.77**	**51.37**	**100**

The NFIM population tends to move to places where facilities, opportunities, and the work environment are better. The choice of geographical location for the NFIM population could be urban, semi-urban, or district headquarters. Table 3 presents the origin and destination of the NFIM population by urban and rural. Within the NFIM population, 91.2% originated from rural areas, and 8.8% originated from urban areas. The destinations of the NFIM population were 46.7% for the urban areas and 53.3% for the rural areas.

Table 3. Origin and destination region of non-family-reason internal migration (in %).

		Destination		
		Rural	Urban	Total
Origin	**Rural**	51.6	39.6	**91.2**
	Urban	1.7	7.1	**8.8**
	Total	**53.3**	**46.7**	**100**

Note: 19.02% urban population, NLSS 2010/11.

Table 4 shows that the urban area has a 16.8% and the rural area has a 4.7% NFIM population. This table shows that within the top consumption (fifth) quintile 23.4% were NFIM population in urban areas compared to 12.4% in rural areas. There was an increasing trend in the proportion of NFIM population in each consumption quintile as the consumption quintile increased from poor (first) quintile to rich (fifth) quintile. The distribution of NFIM, non-NFIM, and all population by consumption quintile and urban/rural with column percentages are shown in Table 5. This table shows that 74.3% of the NFIM population and 91.1% of the urban areas' NFIM population in Nepal were on the top fourth or fifth quintile. Though the NFIM population size was small at 7.04% of the total population, it covered a very large proportion of the top richest consumption (fifth) quintile, as seen in Table 4 and Table 5.

Table 4. Percentage of the non-family-reason internal migrant population by Consumption quintile and Urban/Rural (in %).

Consumption Quintile	Rural	Urban	Total
1 (poor)	1.47	4.11	1.59
2	2.71	6.25	3.06
3	4.28	6.52	4.51
4	5.69	13.25	7.30
5 (rich)	12.36	23.44	17.79
Total	**4.67**	**16.78**	**7.04**

Table 5. Distribution of all and NFIM population by consumption quintiles and region (in %).

Consumption Quintile	All population			NFIM population			Non-NFIM population		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1 (poor)	23.6	4.8	20	7.1	1.1	4.3	23.2	5.1	20.1
2	22.3	10.4	20	12.6	3.7	8.5	22.2	11.2	20.3
3	22.2	10.8	20	20.6	4.2	12.9	22.5	12.0	20.7
4	19.4	22.5	20	24.4	17.6	21.2	19.8	23.2	20.4
5 (rich)	12.6	51.5	20	35.4	73.5	53.1	12.3	48.4	18.6
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 6 presents some socio-economic characteristics of NFIM and other populations (non-NFIM). This table shows that 7.4% of the NFIM population was below the poverty threshold, while all other (non-NFIM) populations had a 25.2% poverty rate. Having the farming land for agriculture and own-dwelling proportion was much lower for the NFIM population compared to all other populations. The facilities of electricity, piped water connected in the house, mobile, and telephone at the household proportion were much higher for the NFIM population compared to all the other populations. Also, the literacy rates were much higher for the NFIM population. These socio-economic characteristics showed that the NFIM population had a better socio-economic status compared to all other populations.

The mean and median per capita per year consumption by urban/rural and consumption quintile for the NFIM, other populations, and the whole country in Nepalese rupees are presented in Table 7. In urban areas, the median per capita per year consumption for NFIM population was Nepalese rupees, NRs 65,358 and non-NFIM population was NRs. 45,242. Similarly, in rural areas, the median per capita per year consumption for NFIM population was NRs. 35,809 and for non-NFIM population was NRs. 23,879. This table shows that there were differences between consumption expenditure for the richest fifth quintile but not for other quintiles.

Table 6. Percentage of population for some social economic variables by migration status (in %).

Variables	NFIM	All others (non-NFIM)	Whole country
Poverty	7.4	25.2	25.2
Farm land	48.9	81.3	75.7
Own dwelling	65.0	94.7	89.7
Electricity	92.0	65.3	69.9
Pipewater connected in house	80.9	40.8	48.2
Mobile	80.5	56.6	60.7
Literacy rate (age ≥ 5)	73.5	58.8	59.9
Literacy rate (age ≥ 15)	72.1	54.9	56.5
Telephone	24.9	10.0	12.5

Table 7. Per capita consumption per year by consumption quintile and NFIM or all other populations.

Consumption quintile	NFIM				All others (non-NFIM)				Whole country			
	Urban		Rural		Urban		Rural		Urban		Rural	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
1 (poor)	13,788	14,782	12,825	13,197	13,765	14,550	13,242	13,735	13,658	13,983	13,144	13,603
2	19,962	20,335	19,756	19,814	19,545	19,445	19,279	19,148	19,572	19,551	19,289	19,157
3	25,823	25,788	26,767	27,018	26,478	26,662	26,230	26,075	26,399	26,484	26,237	26,075
4	38,528	38,205	37,964	37,167	38,190	38,048	36,520	35,868	38,274	38,100	36,605	36,012
5 (rich)	96,128	78,298	72,243	62,222	88,339	71,989	67,751	58,833	89,312	73,337	68,128	59,037
Whole country	**79,353**	**65,358**	**43,708**	**35,809**	**57,700**	**45,242**	**28,805**	**23,879**	**60,131**	**47,762**	**28,887**	**23,757**

3.3. Logistic Models for NFIM and Internal Migration

We fitted two multiple logistic regression models to understand the significant factors for NFIM and internal migration. The covariates were chosen based on their potential to stimulate migration. For example, moving to a different location for a farmhouse or owning large agricultural land is a more challenging task compared to others. Similarly, educated individuals may seek more opportunities, which may not be available in their current locations. We chose eleven relevant socio-economic, geographic, and demographic covariates to fit both models; nine were categorical variables and two were continuous variables. The two continuous variables were *consumption per-capita-per-day* and *total agricultural land* (*in hectares*) *operated by the household*. The nine qualitative variables are *ecological belt*, *age-group*, *education-level*, *poverty status*, *own dwelling*, *mobile*, *electricity*, *farm-household*, and *ethnicity*. For the qualitative variables: the reference category for *belt* was *mountain*, the reference category for the *current age group* was *ages* 0 *to* 20 *years*, the reference group for *education* was *illiterate or up to class* 10

passed, the reference group for *poverty status* was *poor*, the reference group for *mobile* was *not having mobile*, the reference group for *electricity* was *household without electricity*, the reference group for *farm household* was *not a farm household*, and the reference group for *ethnicity* was *hill-Brahmin/Chhetri*.

Table 8 presents the multiple logistic regression outputs for the binary response variable NFIM. This table shows that seven covariates have positive effects, and four covariates have negative effects on the odds of a person being an NFIM individual. The positively affecting covariates are *per capita per day consumption*, *belt*, *current age group*, *education level*, *poverty status*, *mobile*, and *electricity*. The negatively affecting covariates are *total land operated by household for agriculture*, *own dwelling*, *farm household*, and *ethnicity*. This table shows that *terai*, *current age* 21 - 45, *current age* 46 *and above*, *electricity* had higher odds, greater than 2, for an NFIM individual. As the education level increases, the odds of being NFIM also increase. The regression coefficient for the *per-capita-per-day-consumption* is positive, an increase in *per-capita-per-day consumption* will increase the probability of being a NFIM individual. The NFIM model showed an increase in *per-capita-per-day consumption* by NRs. 50 will increase in the odds of NFIM by 19.5%. The regression coefficient for the *total agricultural land operated by household in hectares* is negative, so an increase in *agricultural land operated by household* will decrease the probability of the NFIM population. The NFIM model showed that an increase in 1 ropani (1 *hectare* = 19.65 *ropanis*) *agriculture land operated by household* will decrease the odds by 0.75% in NFIM, similarly, 1 kattha (1 *hectare* = 29.53 *kattha*) *agriculture land operated by household* will decrease odds by 0.50% in the NFIM.

Comparing the *ethnicities* of Nepal, with all ethnicities, the odds of being an NFIM or an internal migrant were less than the reference *hill-Brahmin/Chhetry ethnicity*, Table 8 and Table 9. The ethnicity categories show that all *ethnicities* had lower odds for NFIM or internal migrants. The decrease in the odds to be a NFIM individual for *hill/terai indigenous* was 17%. The *Newaa/Pahari* indigenous was 73%, *Dalits* were 31%, *terai high and middle cast* was 70% and *other minorities* were 76%.

Table 9 presents the multiple logistic regression outputs for the binary response variable internal migration. This table shows that six covariates (*per capita per day*, *belt*, *current age group*, *poverty status*, *mobile*, *and electricity*) have positive effects; these six covariates also have positive effects on the NFIM model. Five covariates (*total land operated by household for agriculture*, *educational status*, *own dwelling*, *farm household*, *and ethnicity*) have negative effects on the odds of internal migration. This table showed that *terai*, *current age* 21 - 45, and *current age* 46 *and above* had higher odds for internal migration (*greater than* 2). The much higher odds of 6.8 and 7.7 for the age categories, current age 21 - 45 and current age 46 and above, respectively, were due to females being moved to their husband's house after marriage. The education level covariate has a different sign of regression coefficient in internal migration than NFIM. In *ethnicity* categories, there was a decrease in the odds of being an internal migrant for all *ethnicities* as

compared to the reference of the *hill-Brahmin/Chhetry*, which is like the trend shown by the NFIM model. In ethnicity categories, there was a reduction in the odds of being an internal migrant for *hill/terai indigenous* by 38%, *Newaa/Pahari indigenous* by 71%, *Dalits* by 35%, *terai high and middle cast* by 71% and *other minorities* by 78%.

Table 8. Multiple logistic regression model for non-family-reason internal migration.

Variable	Coefficient	Std. Err.	z	$P>\|z\|$	Odd Ratio
Per capita per day consumption (NRs.)	0.00356	0.000309	11.5	<2e−16***	1.0036
Total land operated by household (in hectares)	−0.14736	0.043673	−3.4	0.000740***	0.863
Belt					
Mountain	0				1
Hill	0.59	0.15	4.0	6.14e−05***	1.81
Terai	1.06	0.15	7.1	1.06e−12***	2.90
Current age group					
00 - 20	0				1
21 - 45	0.84	0.07	12.8	<2e−16***	2.32
46 and above	1.63	0.07	23.6	<2e−16***	5.13
Education					
Illiterate - class 10	0				1
S.L.C/Under-graduate	0.30	0.07	4.0	5.29e−05***	1.34
Graduate or above	0.67	0.18	3.7	0.000187***	1.95
Poverty status					
Poor	0				1
Nonpoor	0.32	0.09	3.4	0.000781***	1.37
Own dwelling					
No	0				1
Yes	−2	0.06	−25.3	<2e−16***	0.205
Mobile					
No	0				1
Yes	0.28	0.08	3.7	0.000220***	1.33
Electricity					
No	0				1
Yes	0.96	0.11	9.1	<2e−16***	2.62
Farm household					
No	0				1
Yes	−0.47	0.07	−7.2	6.50e−13***	0.62

Continued

Ethnicity					
Hill Brahmin/Chhetry	0				1
Hill/Terai indigenous	−0.19	0.06	−3.2	0.001348**	0.83
Newaa/Pahari	−1.29	0.09	−13.8	<2e−16***	0.27
Dalits	−0.38	0.10	−3.8	0.000165***	0.69
Terai high & middle caste	−1.22	0.10	−12.0	<2e−16***	0.30
Other minorities	−1.44	0.18	−8.0	1.54e−15***	0.24
Constant	−3.80	0.20	−19.2	<2e−16***	0.02

Table 9. Multiple logistic regression model for internal migration.

Variable	Coefficient	Std. Err.	z	$P>\|z\|$	Odd Ratio
Per capita per day consumption (NRs.)	0.00305	0.0002437	12.5	<2e−16***	1.0031
Total land operated by household (in hectares)	−0.07692	0.019347	−4.0	7.01e−05***	0.926
Belt					
Mountain	0				1
Hill	0.29	0.07	4.4	1.10e−05***	1.34
Terai	0.82	0.07	11.8	<2e−16***	2.27
Current age group					
00 - 20					1
21 - 45	1.92	0.04	49.5	<2e−16***	6.81
46 and above	1.98	0.04	47.1	<2e−16***	7.25
Education					
Illiterate - class 10	0				1
S.L.C/Under-graduate	−0.39	0.06	−6.9	6.69e−12***	0.68
Graduate or above	−0.62	0.17	−3.7	0.000194***	0.54
Poverty status					
Poor	0				1
Nonpoor	0.12	0.04	2.7	0.006569**	1.13
Own dwelling					
No	0.00				1
Yes	−1	0.05	−25.2	<2e−16***	0.267
Mobile					
No	0				1
Yes	0.19	0.04	4.9	8.51e−07***	1.21
Electricity					
No	0.00				1

Continued

Yes	0.42	0.04	9.8	<2e−16***	1.52
Farm household					
No	0				1
Yes	−0.15	0.04	−3.6	0.000359***	0.86
Ethnicity					
Hill Brahmin/Chhetry	0				1
Hill/Terai indigenous	−0.49	0.04	−12.4	<2e−16***	0.62
Newaa/Pahari	−1.23	0.06	−21.0	<2e−16***	0.29
Dalits	−0.43	0.05	−8.0	1.49e−15***	0.65
Terai high & middle caste	−1.25	0.06	−22.2	<2e−16***	0.29
Other minorities	−1.51	0.09	−17.3	<2e−16***	0.22
Constant	−1.43	0.09	−15.2	<2e−16***	0.24

3.4. Comparison between Two Surveys

There is a small difference in the migration question designed according to the age of the individual between the 2003/04 and 2010/11 surveys. In 2003/04, migration information was collected from all individuals who were five years or older when they migrated to this place. In 2010, migration information was collected from all individuals who were five years or older, regardless of their age at the time of migration. Therefore, the cross-sectional analysis of the two surveys is not targeted at the same population. If we exactly follow the 2003/04 definition of migration, the percentage of the NFIM population will be 5.63% in 2010/11.

An approximate comparison of the NLSS 2003/04 and NLSS 2010/11 surveys shows a similar pattern: *poverty rates*, *the percentage of households with farmland*, and *the percentage of individuals living in their own dwelling* are lower for the NFIM population compared to the other population in both surveys, while the *literacy rate* is higher in both surveys. The *per capita consumption* patterns for the NFIM and other populations by consumption quintile remain similar in both surveys. The comparisons of the odds ratios between the two surveys may not be exactly comparable, as we also do not have the same covariates in the models. However, as an approximate comparison, we see that the signs of the regression coefficients for the same covariates in both surveys show that both surveys exhibited a similar pattern.

4. Conclusion and Discussion

This paper studied characteristics of non-family-reason internal migration (NFIM) from the third Nepal Living Standards Survey, 2010/11, a national household survey. A migrant was defined as an individual who changed his/her usual place of residence by crossing the political boundary of the municipality/village-development-committee. There was 36.9% ever migrated population, which includes in-

ternal migrants (32.49%) and external immigrants (4.37%). In ever migration, 50.3% were female and 20.8% were male. There was an increasing trend in the proportion of ever migration as the consumption quintile rose from the poor to the richest quintile. The reasons for migration could be family and non-family reasons. The family reasons for migration included marriage, dependents following family, or other family reasons. In the ever migrated population, 79.4% migrated because of family reasons and 20.6% migrated because of non-family reasons. About half being ever migrated were due to marriage. Analysis showed that for the ever migrated population, the main four non-family reasons (*easier lifestyle*, *looking for work*, *education/training*, *and start a new business/job*) had an increasing trend but the family reason of marriage had a decreasing trend in the share of the proportion of ever migration as the consumption quintile rose from poor (first) to richest (fifth) quintile. For non-family reasons, an easier lifestyle, looking for work, education/training, and starting a new business/job were the main four reasons.

There was a 7.04% NFIM population in 2010/11. A little less than half of all NFIM population had urban areas as their destination. The NFIM populations were moving to urban, semi-urban areas or district headquarters locations where opportunities, facilities, and services are more prominent, but not every NFIM population migrates to urban areas. Given that there are very few urban areas in the whole country, the urban areas get a very large number of the NFIM population. By belt, almost all NFIM populations were found in terai and hill ecological belts and migration to the mountain ecological belts is rare.

The socio-economic status of the NFIM population was better than other populations. Though the NFIM population was small, they occupied a large proportion in the richest fifth and fourth quintiles of the consumption distribution (a welfare indicator). The literacy rates, proportion of electricity, piped water connected in house, mobile, and telephone were much higher than in other non-NFIM populations. The non-NFIM population had a higher proportion of poverty, a higher proportion of living in their own dwelling, and a higher proportion of having farming land compared to NFIM populations.

The multiple logistic regression models for NFIM and internal migration showed that an increase in *per capita per day consumption*, *non-poor status*, *mobile*, and *household with electricity* had increased the odds of being NFIM as well as for being an internal migrant. An increase in total *agricultural land operated by households*, *being a farm household* and *not living in their own dwelling* had decreased the odds of being NFIM as well as internal migrant. The decrease in the percentage of odds for a ropani or a katha farmland increase was negligible. It could be because we have a *farm household* (categorical variable) in the model. In geographic areas, we chose ecological belts as one of the covariates since ecological belts have differences in altitude, facilities, population density, ethnicity, and culture. In reference to the *mountain belt*, both *hill* and *terai* had greater odds of both NFIM and internal migration; comparatively, the *terai* had higher odds for both. The

odds ratios show that the odds of finding NFIM and internal migrants in *terai* were much higher.

The current age of individuals was broadly categorized into three groups: *age group* 00 - 20 (age of dependents or students), *age group* 21 - 45 (age of young generation, working age, seeking opportunities, and searching easier lifestyle), *age group* 46 *and above* (experienced, professionals and older). For both NFIM and internal migration, the odds for *age groups* 21 - 45 and 46 *and above* were higher compared with the reference group 0 - 20. This is because the age range of 21 and above is the age of migration. The higher odds for these age categories found in internal migration were due to the female population moving to the groom's house after marriage.

The education and literacy were broadly grouped into three sections: *illiterate to education up to class* 10 (Class 10 is an education below school leaving certificate (S.L.C.) earned), *S.L.C and up to undergraduate*, and *graduate or higher education*. The odds increased as the education of an individual raised for the NFIM population. But this scenario was the opposite for internal migration, possibly the education variable may not explain the internal migration. In this study, education is the only covariate that switched the sign of regression coefficient between NFIM and internal migration models.

The ethnicity variable is broadly categorized into six groups with *hill-Brahmin/Chhetry* as the reference group, 28.4% of the total population were *hill-Brahmin/Chhetry ethnicity* in the census 2011 (Dahal, 2014). With reference to *hill Brahmin/Chhetry ethnicity*, all other castes/ethnicities had a negative coefficient in both the NFIM and internal migration models. It showed that all ethnicities had decreased odds of being NFIM or internal migrants as compared to the *hill-Branhin/Chhetry ethnicity*.

We have found similar patterns of NFIM and internal migration analysis from the second living standard survey, 2003/04 data (Manandhar, 2023, 2024). These studies showed that within the large cluster of internal migration, there is a special cluster of NFIM population, maybe a small cluster, which is distinct and covers a higher socio-economic status compared to all other populations. It is possible that there may be similar characteristics of the NFIM population in other geographical areas of the world.

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Conflicts of Interest

The authors declare no conflict of interest regarding the publication of this paper.

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