# Factors in Internal Migration in India : A Case Study of Ludhiana City

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## Abstract

**Internal migration is an important instrument for filling demand and supply gaps, thereby providing dynamism in the labour market. Migrants play a very important role in urban development. Migrants do all types of jobs which are generally rejected by locals and in the process, they have become an important segment of the urban labour market in relatively developed states of India. With the development of Punjab's economy, the demand for labour increased at a fast rate. A major share of the migrant workers working in agriculture, industrial, and informal sectors of Punjab belong to Uttar Pradesh, Bihar, Rajasthan, and Odisha. The present paper made an attempt to examine the socioeconomic factors affecting internal migration decisions in India. The study was based on a survey of 250 migrants working in the urban informal sector in Ludhiana city. The study identified the factors affecting migration decision by using logit and probit regression approach. The study found that both push and pull factors were responsible for internal labour migration in India. Lack of job opportunities, agriculture not being profitable, unemployment, lack of land ownership in the native place, and family problems pushed people in backward states to work in more developed and prosperous states of Punjab where even informal sector employment is more remunerative. Better working conditions, support, and help from relatives and friends who had migrated earlier were the main pull factors.**

***Keywords :*** **internal migration, logit regression, migrant workers, probit**

**JEL Classification : C5, C53, C63, J61, O15**

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Internal migration always plays an important role in economic development of a country or region. Internal migration refers to migration of people from one place to another place or from rural areas to urban areas within the country, such as between states or cities. This type of migration occurs mainly because of the uneven development of regions or states (Misra, 1998). Uneven development is the main reason for migration along with factors like unemployment, lack of job in native place, poverty, fragmentation of land, large family-size, etc. Migration has positive economic impact on the migrant household in the origin areas as well as in the destination areas. At the origin place, migrant remittances increase incomes, reduce poverty, raise domestic savings, and lead to improved health conditions and educational outcomes. Hence, remittances play an important role in poverty reduction and economic development in origin areas of internal migrants. There are welfare gains in destinations in the form of cheap labour, growth in production, and infrastructural development (Ratha, Mohapatra, & Scheja, 2011).

With the development of Punjab's economy, the demand for labour increased at a fast rate. A major share of the migrant workers working in agriculture, industrial, and informal sectors of Punjab belong to Uttar Pradesh, Bihar, Rajasthan, and Odisha. Excellent connectivity of Punjab state by road and rail and economic prosperity of Punjab

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state has attracted a large number of migrants from other states. Migrants are attracted to Punjab because of better employment opportunities and higher wages than in the states of their origin. Migrants are not only employed in agriculture and the industrial sector, but in other occupations too, such as building and road construction, brick

**Table 1. Brief Review of Empirical Studies on Internal Migration in India**

| Author Name | Study Area and Reference Year | Database and Methodology | Findings |
|---|---|---|---|
| Kumar and Sidhu (2005) | A sample of 200 workers was selected from 25 brick-kilns located in three districts of Punjab i.e. Jalandhar, Ludhiana, and Patiala. | Primary survey, factor analysis | Better employment opportunities, industrial development, attraction of job opportunities, and comparative high wages in Punjab were the most important pull factors which motivated labourers to migrate. On the other hand, lack of development, inadequate agricultural land, and poor economic conditions of family forced labour to migrate out of their native place. |
| Raman and Bhagat (2006) | Internal Migration, 1971-2001 | Census data | Internal migration rates varied by gender as well as region. Internal migration increased during 1990s. Migration was more long distance and rural to urban. There was a significant increase in migration to urban areas both among males and females during 1991-2001. Male migration was primarily for employment and economic reasons. |
| Singh, Singh, and Ghuman (2007) | Punjab, 1981-2001 | Census data | A large number of migrant workers migrated to Punjab after the Green Revolution. This inflow was higher in 1990s as compared to 1980s. Majority of the migrant workers belonged to economically backward states of Uttar Pradesh and Bihar. |
| Mitra and Murayama (2008) | Rural - urban migration | Census data | The study found that the poor and backward states actually showed large population mobility, which was primarily in search of livelihood. In the relatively advanced states like Maharashtra and Gujarat, male mobility was dominant. Prospects for better job opportunities were a major determinant of male migration. |
| Saikia (2008) | A sample of 166 in-migrants workers was drawn from Trivandrum district of Kerala during September - October 2008. | Primary data | The study found that majority of the migrant workers in Trivandrum district of Kerala migrated from West Bengal followed by Assam, Andhra Pradesh, Uttar Pradesh, Tamil Nadu, and Odisha. The major sources of information in obtaining jobs for migrant workers were relatives and friends. Informal networks played an important role in migration of workers to Kerala. Major reasons of migration to Kerala were poor economic conditions and low wages in native place. Employment/better employment, meeting household expenditure, repayment of debts, financing education of dependents, and marriage were other important reasons behind migration. |
| Bhagat and Mohanty (2009) | Rural urban migration, 1981-2001 | Census data | The study found an increase in the contribution of migration towards urban growth during 1990s in comparison with the 1980s. |

| | | | |
|---|---|---|---|
| Bhagat (2009) | Internal migration, 1971-1981 | Census data, correlation analysis | The study found higher growth in interstate migration in comparison with intra-state migration during the 1990s. There was a strong relationship between per capita income and inter-state migration; both in migration and out migration. Interstate migration was also correlated with the share of non-agriculture in gross state domestic product (GSDP) and employment as well as rural poverty. |
| Srivastava (2009) | Impact of migration, 1981-2001 | Census data, NSSO data | Remittances and savings are primary channels through which migrant workers are able to stabilize or improve their condition of living. Migration also affected the pattern of growth and development in the source areas. There was also a change in workers' tastes, perceptions, and attitudes due to migration. |
| Sethi, Ghuman, and Ukpere (2010) | A sample of 100 migrant workers was drawn from Patiala city, Punjab. | Primary survey, Census data | The study found that majority of the migrant workers belonged to Uttar Pradesh and Bihar. Social and family disputes, poverty, and unemployment were the push factors which inspired the migrant workers to shift from their origin place. On the other hand, better employment opportunities in the destination place, high wage rate, and attraction of city life were the pull factors. The authors also found that due to pull and push factors, the migrant workers were forced to leave their origin places at a young age. |
| Sridhar, Reddy, and Srinath (2010) | A sample of 600 migrant households and 200 non-migrants was drawn from Bangalore. | Primary survey, Probit model | The study found that among lower migrant workers, the importance of push factors was greater; whereas, with increasing level of education of the migrant workers, pull factors became more important in migration. Female workers were primarily 'pulled' towards urban areas for job opportunities and higher expected income. |
| Kohli (2010) | Inter-state immigration into Punjab | Census data | Economic underdevelopment, low wages, unemployment, and increasing number of landless workers in the origin states of migrant workers were push factors in migration. The pull factors which attracted migrant workers to Punjab were increasing demand for migrant workers in the agriculture sector due to the adoption of Green Revolution technologies, higher wage rates, tremendous increase in demand for skilled and unskilled labour in the urban industrial and informal sectors of Punjab. |
| Singh, Kumar, Singh, and Yadava (2011) | Internal Migration, 1971-2001 | Census data | In interstate migration, the percentage of rural - urban stream was found higher than other streams. Major reason for male migration was employment and in case of females, marriage was found to be the main reason for migration. Maharashtra and Madhya Pradesh led the in migrating states, while the economically backward states of Uttar Pradesh and Bihar occupied the top position among the out migrating states. |

| | | | |
|---|---|---|---|
| Kaur, Singh, Garg, Singh, and Singh (2011) | Central Zone of Punjab, 2011 | Primary survey | The study found that majority of the migrants were young males belonging to general caste with faith in Hindu religion. Majority of the workers were illiterate and migrated in the first decade of the 21st century. Better income and employment opportunities at the destination place were the major reasons for migration. |
| Chakraborty and Kuri (2013) | Internal migration, 1961-2001 | Census data | The study found that on the economic front, better employment opportunities in urban centers attracted a sizeable proportion of workers from rural to urban areas. Rural indebtedness was an important push factor. |
| Vinayakam and Sekar (2013) | A sample of 305 migrant workers was selected from 10 zones of the Chennai City Corporation areas. | Primary survey, Census data | The study found that in rural areas, less employment opportunities, low wages, lack of basic amenities, drought, and landlessness were the major push factors which compelled migrants to migrate from their origin place. Better employment opportunities, higher income, better wages, medical and educational facilities attracted rural migrants to migrate to Chennai city. |
| Mehra and Singh (2013) | A sample of 500 industrial migrant workers was taken randomly from various large/medium and small-scale industrial units. | Primary survey | The study found that economic factors played an important role in migration. The major sources of information in obtaining the first job of migrants were through relatives. Most industrial migrant workers spent upto ₹ 400 for traveling to Ludhiana city and often faced problems while traveling to the city. |
| Mehra and Singh (2014) | A sample of 500 industrial migrant workers was taken randomly from various large/ medium and small-scale industrial units. | Primary survey | The study found that most of the migrant workers working in industries were married males. Majority of the migrant workers belonged to Uttar Pradesh and Bihar. Poverty, indebtedness, and better wages were the main reasons for migration. Friends and family played an important role for selecting Ludhiana city as a destination. |
| Malhotra (2015) | Data were collected from three districts of Punjab, that is, Amritsar, Jalandhar, and Ludhiana. | Primary survey, Factor analysis | The study found that better employment opportunties at the destination place, better living conditions, fulfillment of self-aspirations, and attraction of urban facilities were the pull factors which motivated the migrants to migrate to Punjab. On the other hand, lower educational, economic, and social status ; lack of adequate agricultural land ; and poor economic conditions of family compelled labour to migrate. |
| Kaur and Gupta (2016) | A sample of 255 migrant workers was drawn from Ludhiana, Punjab. | Primary survey | The study found that both push and pull factors played an important role in labour migration. |
| Agasty (2016) | A sample of 200 households was drawn from six villages in three blocks of Kendrapara district in Odisha. | Primary survey | The study found that migration of adult household members affected the education of children who were left behind in several ways. As per school enrolment, the children of migrant families were ahead of children of non-migrants and returned migrants. However, in the case of school attendance, continuation in education, and academic achievement, they lagged behind children of the latter two categories of households. |

making, and rickshaw pulling. Most of these migrants are males. It needs special mention that a large number of these migrants have become permanent settlers in Punjab as a part of urban and rural settlements. Those who migrate seasonally and continue to shift their residence are not recorded in the Census data. Therefore, a large number of migrants remain unrecorded (Government of Punjab, 2004).

## Database and Methodology

The present paper makes an attempt to examine the socioeconomic factors affecting internal migration decisions in India. The present study is based on primary data. The data were collected through a well-structured questionnaire. The sample size was 250 migrant workers in the urban informal sector in Ludhiana city in Punjab. Data were collected through personal interviews. The survey was conducted from February - May 2015.

In our survey, migrant workers were given a large number of reasons affecting migration decisions. Some of these reasons can be categorized as push factors, while others are pull factors. Therefore, the respondents who chose both push and the corresponding "pull" factor can be classified as a set of people for whom both the push and pull factors were important for migration.

Hence, to separate the purely push from the purely pull factors, we define a variable $Y_i$, for each individual migrant, where :

$$Y_i = \frac{\text{(Number of pull reasons for migration chosen)}}{\text{(Total number of reasons for migration)}}$$

Hence, the variable $Y_i$ varies from 0 to 1, with the value 0 indicating that the individual's reasons for migration are "only push" in nature, and the value 1 referring to "only pull" factors (Sridhar et al., 2010). For the sake of classification, we can divide the range of possible values so that $Y_i$ can be divided into five parts :

$Y_i = 0$ ; "Only Push"
$0 < Y_i < 0.5$ ; "Mainly Push"
$Y_i = 0.5$ ; "Both Push and Pull"
$0.5 < Y_i < 1$ ; "Mainly Pull"
$Y_i = 1$ ; "Only Pull"

For statistical analysis, values ranging from 0 to 0.5 are taken as push factors, that is, 0 and values greater than 0.05 to 1 are taken as pull factors, that is, 1. In order to identify the socioeconomic factors affecting migration, we have used logistic regression and probit regression analysis.

**(1) Logit Regression Analysis :** Logit regression model is used when a dependent variable is binary, which takes the values 0 or 1. Logit regression estimates the probability of dependent variables, $y = 1$. The logit model can be specified as :

$$P_i = E(Y = 1 \mid X_i) = \beta_1 + \beta_2 X_i \qquad (1)$$

where, $X_i$ is the explanatory variable and $Y$ is the decision to migrate. $Y = 1$ means migrant workers migrate due to pull factors. Now, consider the following representation of decision to migrate :

$$P_i = E(Y = 1 \mid X_i) = \frac{1}{1 + e^{-(\beta_1 + \beta_2 X_i)}} \qquad (2)$$

For ease of exposition, we write (2) as :

$$P_i = \frac{1}{1+e^{-Z_i}} = \frac{e^Z}{1+e^Z} \quad (3)$$

where, $Z_i$ is $\beta_1 + \beta_2 X_i$

Equation (3) represents what is known as the logistic distribution function.

If $P_i$, the probability of migrant workers migrating due to pull factors is given by (3), then $(1 - P_i)$, the probability of migrant workers migrating due to push factors, is :

$$(1 - P_i) = \frac{1}{1+e^{Z_i}} \quad (4)$$

Therefore, we can write :

$$\frac{P_i}{1 - P_i} = \frac{1+e^{Z_i}}{1+e^{-Z_i}} = e^{Z_i} \quad (5)$$

Now, if we take the natural log of (5), we obtain the following result :

$$L_i = ln \left(\frac{P_i}{1 - P_i}\right) = Z_i$$

$$= \beta_1 + \beta_2 X_i \quad (6)$$

**(2) Probit Regression Analysis :** In order to understand the factors which determine the decision to migrate, we estimated a probit model where the dependent variable is continuous and has the range [0, 1]. The theoretical background for the probit model is as follows:

$$I_i = \beta_1 + \beta_2 X_i \quad (7)$$

where, $I_i$ is a latent variable and $X_i$ is the explanatory variables :

$$P_i = P(Y = 1|X) = P(I'_I \leq I_I) = P(Z_i \leq \beta_1 + \beta_2 X_i = F(\beta_1 + \beta_2 X_i)) \quad (8)$$

where, $P(Y = 1|X)$ means the probability that an event occurs given the values of the $X_i$, explanatory variables, and $Z_i$ is the standard normal variable, that is, $ZN$ - $(0, \alpha^2)$. $F$ is the standard normal cumulative distribution functions, which when written explicitly in the present context is :

$$F(I_i) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{I_i} e^{Z^2/2}\, dz$$

$$= \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\beta_1 + \beta_2 X_i} e^{Z_i^2/2} dz \quad (9)$$

Since, $P$ represents the probability that an event will occur, it is a measure of the area of the standard normal curve from $-\infty$ to $I_i$.

Now, to obtain information on $I_i$, the utility index, as well as on $\beta_1$ and $\beta_2$, we take the inverse of (8) to obtain :

$$I_i = F^{-1}(I_i) = F^{-1}(i)$$
$$= \beta_1 + \beta_2 X_i$$

where, $F^{-1}$ is the inverse of normal cumulative distribution functions.

## Analysis and Results

**(1) Socioeconomic Background of Migrant Workers :** The distribution of migrant workers according to their socioeconomic background has been discussed under the following headings :

**(i) Current Age Distribution :** As far as the age distribution of migrant workers in the sample is concerned, it was found that around 34.8% of the workers belonged to the age group of 21-30 years, and another 28.8% of the workers were in the age group of 31 - 40 years. The remaining 16.4%, 14%, and 6%, respectively were in the age groups of less than or equal to 20 years, 41-50 years, and greater than 51 years, respectively (Table 2).

**(ii) Age at the Time of Migration :** The Table 2 shows that 78% of the migrant workers belonged to the age group of less than and equal to 24 years and 24.6% of the migrant workers were in the age group of 25 years and above. Thus, the table shows that majority of the workers covered were up to the age of 24 years when they decided to migrate. Hence, age is an important factor in the migration decision.

**Table 2. Socioeconomic Profile of Migrant Workers in the Urban Informal Sector in Ludhiana**

| Age Distribution of Migrant Workers | | |
|---|---|---|
| **Age Groups** | **Frequency** | **%** |
| Less than & equal to 20 | 41 | 16.4 |
| 21-30 | 87 | 34.8 |
| 31-40 | 72 | 28.8 |
| 41-50 | 35 | 14 |
| Greater than 50 | 15 | 6 |
| Total | 250 | 100 |
| **Age at Time of Migration** | | |
| Less than & equal to 24 | 196 | 78.4 |
| 25 and Above | 54 | 21.6 |
| Total | 250 | 100 |
| **Sex of Migrant Workers** | | |
| Male | 234 | 93.6 |
| Female | 16 | 6.4 |
| Total | 250 | 100 |
| **Religion and Caste Composition of Migrant Workers** | | |
| Muslim | 32 | 12.8 |
| Hindu | 218 | 87.2 |
| Total | 250 | 100 |
| **Caste Composition of Hindu Migrant Workers** | | |
| Scheduled castes (SC) | 72 | 33 |
| Other Backward Castes (OBC) | 86 | 39.4 |
| General | 60 | 27.5 |
| Total | 218 | 100 |

| | | |
|---|---|---|
| **Education of Migrant Workers** | | |
| Illiterate | 70 | 28 |
| Primary | 53 | 21.2 |
| Middle | 69 | 27.6 |
| Matriculation | 34 | 13.6 |
| Secondary | 19 | 7.6 |
| Graduation | 5 | 2 |
| Total | 250 | 100 |
| **Marital Status of Migrant Workers** | | |
| Married | 180 | 72 |
| Unmarried | 70 | 28 |
| Total | 250 | 100 |
| **Family Type and Family Size of Migrant Workers** | | |
| Nuclear | 204 | 81.6 |
| Joint | 46 | 18.4 |
| Total | 250 | 100 |
| **Family Size of Migrant Workers** | | |
| Less than & equal to 4 | 55 | 22 |
| 5 to 8 | 180 | 72 |
| 8+ | 15 | 6 |
| Total | 250 | 100 |
| Average Family size | 5.7 | |

**(iii) Sex :** The Table 2 shows that 93.6% of the respondents in Ludhiana city were men and 6.4% were women. Thus, majority of the economically active migrant workers were men, while women migrants constituted a smaller proportion in the urban informal sector.

**(iv) Religion and Caste :** The data shows that 87.2% of the migrant workers were Hindus and 12.8% migrants were Muslims. The Table 2 also depicts the caste composition of Hindu migrants. Majority of the Hindu migrants were either Scheduled Castes (SCs) or Other Backward Castes (OBCs). Out of 218 Hindu migrants in the sample, 33% people belonged to SC category, 39.4% belonged to OBC, and 27.5% belonged to the general category.

**(v) Educational Level :** The Table 2 also gives a distribution of the sample migrants according to their educational level. About 28% of the migrant workers had a middle level education, 21.2% of the migrant workers had primary level of education, and 13.6 % of the migrant workers had matric level of education. Only 2% of the migrant workers had completed their graduation, and 28% of the migrant workers in the urban informal sector were illiterate. The Table 2 shows that most of migrants who worked in the urban informal sector in Ludhiana were illiterate or had low level of education, and therefore, they were engaged in the urban informal sector.

**(vi) Marital Status :** As shown in the Table 2, out of the 250 migrant workers, 81.6% of the migrant workers in the sample were married and 18.4% were unmarried. The Table 2 shows that most of the migrant workers were married and they were living in another city due to responsibility of their families.

**(vii) Family Type and Family Size of Migrant Workers :** Majority of the migrant workers (81.6%) belonged to nuclear families and 18.4% of the migrant workers belonged to the joint family system. Hence, it is clear that family size influences the migration decision in several ways. As the family size increases, the possibility of migration also increases.

According to Census 2001, the average family size in India is 5.6. The Table 2 shows that out of 250 respondents, 72% workers had a family size of 5-8 members and 22% of the workers had a family size of upto 4 members. Only 6% of the respondents had a family size of more than 8 members. The average family size of the workers was 5.7.

### (2) Origin Place and Occupation of Migrant Workers

↳ **Origin Place of Migrant Workers :** The Table 3 presents the origin place of migrant workers, that is, from which state the workers migrated to the urban informal sector in Ludhiana city, Punjab. The Table 3 shows that out of the 250 respondents, 58.8% of the workers were from Uttar Pradesh, followed by 32.4 % from Bihar. About 4% workers belonged to West Bengal, 2% were from Himachal Pradesh, 1.6 % were from Odisha, and 0.8% were from Jharkhand.

**(3) Occupation of Migrant Workers in Their Origin Place :** The Table 3 presents the work profile of migrant workers in their origin place. The Table 3 shows that out of the 250 respondents, 70% of the workers were unemployed and 30% were employed. Among those who were employed, only a small proportion worked as

**Table 3. Origin and Occupation of Migrant Workers in the Urban Informal Sector in Ludhiana City**

| Origin Place of Migrant Workers | | |
|---|---|---|
| | **Frequency** | **%** |
| Uttar Pradesh | 147 | 58.8 |
| Bihar | 81 | 32.4 |
| Himachal Pradesh | 5 | 2.0 |
| West Bengal | 10 | 4.0 |
| Jharkhand | 2 | 0.8 |
| Odisha | 4 | 1.6 |
| Uttaranchal | 1 | 0.4 |
| **Total** | **250** | **100** |
| **Occupation of Migrant Workers in Origin Place** | | |
| Unemployed | 175 | 70.0 |
| Labour | 20 | 8.0 |
| Farmer | 30 | 12.0 |
| Agriculture worker | 17 | 6.8 |
| Tailor | 2 | 0.8 |
| Driver | 1 | 0.4 |
| Worker in Shop | 1 | 0.4 |
| Barber | 3 | 1.2 |
| Pan Shop | 1 | 0.4 |
| **Total** | **250** | **100** |

**Table 4. Results of Chi Square Test**

| Characteristics | Chi - square Value | Tabulated Value | Degree of Freedom | Significance |
|---|---|---|---|---|
| | | **Ludhiana** | | |
| Age | 67.68 | 13.277 | 4 | Significance* |
| Sex | 190.096 | 6.635 | 1 | Significance * |
| Religion | 138.384 | 6.635 | 1 | Significance* |
| Education | 86.288 | 15.1 | 5 | Significance * |
| Marital Status | 48.400 | 6.635 | 1 | Significance* |
| Type of Family | 99.856 | 6.635 | 1 | Significance * |

Note: *1 % level of significance

**Table 5. Migration Details of Sample Migrants**

| **Migration and Migration Detail** | | |
|---|---|---|
| **Year of Migration** | | |
| | **Frequency** | **%** |
| 1981-1990 | 28 | 11.2 |
| 1991-2000 | 60 | 24.0 |
| 2001- 2010 | 122 | 48.8 |
| 2011 | 40 | 16.0 |
| **Total** | **250** | **100** |
| **Occupation at Start** | | |
| Labour | 43 | 17.2 |
| Fruit seller | 10 | 4.0 |
| Factory | 10 | 4.0 |
| Painter | 12 | 4.8 |
| Vegetable vendor | 24 | 9.6 |
| Domestic worker | 15 | 6.0 |
| POP | 14 | 5.6 |
| Electrician | 10 | 4.0 |
| Street Food Vendor | 4 | 1.6 |
| Rickshaw Puller | 11 | 4.4 |
| Worker in shop | 3 | 1.2 |
| Mason | 22 | 8.8 |
| Pan shop | 7 | 2.8 |
| Tailor | 11 | 4.4 |
| Auto Driver | 9 | 3.6 |
| Barber | 6 | 2.4 |
| Plumber | 11 | 4.4 |
| Welder | 10 | 4.0 |
| Cloth Seller | 7 | 2.8 |
| Salesman | 11 | 4.4 |
| **Total** | **250** | **100** |
| **How Did You Find Your First Job?** | | |
| Family Contacts | Frequency | % |
| Friends | 165 | 66 |
| Relatives | 79 | 31.6 |
| Contractor | 1 | 0.4 |
| Self | 5 | 2.0 |
| **Total** | **250** | **100** |
| **When You Moved to the City, Did You Have a Job?** | | |
| Yes | 229 | 91.6 |
| No | 21 | 8.4 |
| **Total** | **250** | **100** |

farmers and agricultural workers, while the remaining were labourers in the informal sector. Availability of job opportunities and better quality of job conditions played an important role in the decision of the migration process.

**(4) Results of Chi - Square Test :** The Table 4 gives the results of the chi - square test. Chi square is a test of goodness of fit. For all the values of the characteristics, the chi square values are significant, that is, age, sex, religion, education, marital status, and type of family of the respondents. Chi square values are significant at the 1% level .

**(5) Migration Detail**

**(i) Year of Migration :** The Table 5 gives decade-wise data on migrants' year of migration. It was found that out of 250 respondents, 64.8% of the migrant workers claimed that they came to Punjab from their place of origin after 2000. During the period from 1981 to 1990, only 11.2% of the migrant workers migrated and during 1991-2000, 24% of the people migrated to the urban informal sector in Ludhiana. Thus, majority of the migrants came to Punjab during the last 15 years.

**(ii) Occupation on Arrival :** Immediately after arrival at the place of migration, migrants tended to do jobs which were easily available. Usually, they followed the profession of their friends and relatives who had already migrated and were their immediate support. The Table 5 shows that out of 250 respondents, 17.2% worked as labourers, 4% were fruit sellers, 4% were factory workers, 4.8% were painters, and 9.6% were vegetable vendors. Rest of the migrants followed various professions in the informal sector as per their qualifications and job availability.

**(iii) Role of Contacts in Migration :** A family contact is one of the factors that pulls people to shift from the place of origin to another state. Family contact with the already settled migrants in the place of destination not only helped in reducing the cost of job search, but also helped in improving the quality of information about the urban employment prospects.

The Table 5 shows that out of 250 respondents, 66% of the migrant workers got their first job with the help of their friends, 31.6% with the help of their relatives, and 1% with the help of contractors. Only 2% migrant workers found their first jobs themselves. Data also shows that 91.6% of the sample migrants did have a job on arrival in the city and only 8.4% of the migrants had to wait for some days or weeks to get their first job on arrival.

**(6) Reasons for Migration :** The data on reasons for migration indicates the importance of economic factors in decision to migrate. The Table 6 divides the various reasons for migration into push and pull factors that encouraged migration from the origin areas to Ludhiana city. The migrant workers were attracted to Ludhiana city due to better income (90.4 %) and better work (74.4%). The major reason for migration from the origin place was unemployment (70%) and no job in native place (68.8%). The other reasons for migration from the origin place was no land in native place (65.6%), poverty (30%), family problems (24%), and agriculture not being profitable (7.6 %). Migrant workers generally had more than one reason to migrate.

The Table 6 shows that most of the migrants themselves decided to migrate. Out of the 250 migrant workers in Ludhiana city, 53.2% of the migrant workers took the migration decision themselves. In 22% of the cases, the migration decision was taken by the parents. The Table 6 also shows that out of the 250 respondents, nearly 49.9% of the migrant workers migrated alone; the rest were either accompanied by family (12%) or friends (23.6%) and relatives (14.8).

**Table 6. Reasons for Migration**

| Reasons for Migration and Decision of Migration | | |
|---|---|---|
| **Reasons for Migration** | | |
| **Reasons for Migration** | **Frequency** | **%** |
| Better work | 186 | 74.4 |
| Better income | 226 | 90.4 |
| Friends and family | 62 | 24.8 |
| No job in native place | 172 | 68.8 |
| Family problem | 58 | 23.2 |
| Poverty | 75 | 30.0 |
| Agriculture not being profitable | 19 | 7.6 |
| Migration with husband | 16 | 6.4 |
| Unemployment | 175 | 70.0 |
| No land | 164 | 65.6 |
| **Who Took the Migration Decision ?** | | |
| **Migration Decision** | **Frequency** | **%** |
| Yourself | 133 | 53.2 |
| Spouse | 15 | 6 |
| Parents | 55 | 22 |
| Relatives | 23 | 9.2 |
| Friends | 24 | 9.6 |
| **Total** | **250** | **100** |
| **Migration With** | | |
| **Migration With** | **Frequency** | **%** |
| Alone | 124 | 49.6 |
| With family | 30 | 12 |
| Relatives | 37 | 14.8 |
| Friends | 59 | 23.6 |
| **Total** | **250** | **100** |

**(7) Movement of Families of Migrants :** The Table 7 gives information about family movement to city and time gap between migration and family relocation. The Table 7 shows that out of 250 respondents, 30% migrant workers brought their families to the city. Within those migrants whose families also migrated, about 45.3% of the migrant workers were able to bring their families to Ludhiana city within one year of migration ; whereas 36% and 10.7% of the migrant workers were able to bring their families to the city with a gap of 1-5 years and 6-10 years, respectively.

**(8) Problems Faced by Migrants :** The Table 8 provides information on access that migrant workers had to important government documents of identity proof. Out of 250 respondents, only 8.4% of the migrant workers had a ration card ; 10.4% of the migrant workers had a voter card, and only 5.2% of the workers had a driving license. A large number of migrants already had Aadhar card (38%). Only 7.2% of the workers had Pan Cards. These documents are important for availing various social welfare policies of the government like subsidies, food

**Table 7. Movement of Families of Migrants**

| Family Moved to City | | |
|---|---|---|
| **Family Moved to City** | **Frequency** | **%** |
| Yes | 75 | 30 |
| No | 175 | 70 |
| **Total** | **250** | **100** |
| **Time Gap Between Migration and Family Relocation** | | |
| Within One Year | 34 | 45.3 |
| 1 - 5 | 27 | 36 |
| 6 -10 | 8 | 10.7 |
| 11- 15 | 4 | 5.3 |
| More than 15 Years | 2 | 2.7 |
| **Total** | **75** | **100** |
| **Reasons for Family Migration** | | |
| Family problems | 32 | 42.7 |
| Feeling loneliness | 5 | 6.7 |
| Food problem | 3 | 4 |
| Migration with husband | 16 | 21.3 |
| No one can take care of family | 10 | 13.3 |
| No work at origin place | 1 | 1.3 |
| Better education for children | 8 | 10.7 |
| **Total** | **75** | **100** |

**Table 8. Migrant Workers' Access to Important Government Documents of Identity Proof**

| Migrant Workers Access to Important Government Documents of Identity Proof | | |
|---|---|---|
| Ration Card | 21 | 8.4 |
| Voter Card | 26 | 10.4 |
| Driving License | 13 | 5.2 |
| Aadhar Card | 95 | 38 |
| Pan Card | 18 | 7.2 |

supplies, health insurance, and social security. At present, a majority of Indians now have Aadhar cards. Hence, it is important that all identity proofs are connected with Aadhar cards.

**(9) Results of Logit and Probit Models :** In order to identify important factors causing migration, logit and probit regression models were used. The results of logistic regression and probit regression analysis are given in the Tables 9 and 10. The coding of various variables is given in Table 9.

The Table 10 presents the results of logistic regression and probit regression analysis. In this model, dependent variable is the reason for migration (i.e. Push = 0, Pull = 1). The independent variables are age at the time of migration, religion, social group status, level of education, family size, better work, lack of job in native place, family problems, agriculture not profitable, unemployment, and land ownership.

Age plays an important role in the decision of migration. Young people have a higher tendency to migrate

**Table 9. Coding of Variables**

| Variable | Code |
|---|---|
| Dependent variable $Y_i$ | Decision to migrate (Push = 0, Pull = 1) |
| Independent Variables | Reasons for Migration |
| Age at the Time of Migration | 0-24 = 0, 25 and above =1 |
| Religion | Hindu =1 , Otherwise = 0 |
| Caste _SC | SC = 0,Otherwise = 1 |
| Caste _OBC | OBC = 0, Otherwise = 1 |
| Illiterate | Illiterate = 0, Otherwise = 1 |
| Primary | Primary = 0, Otherwise = 1 |
| Middle | Middle = 1,otherwise = 0 |
| Matric | Matric = 1,otherwise = 0 |
| Senior Secondary | Senior Secondary = 1, otherwise 0 |
| Number of Family Members | 2-10 |
| Better Work | Better work = 1, otherwise = 0 |
| Friends & Family | With the help of family or friends = 1, otherwise = 0 |
| Lack of Job in Native Place | Lack of job in native place = 0, otherwise = 1 |
| Family Problems | Family Problem = 0, otherwise = 1 |
| Agriculture Unprofitable | Agriculture not profitable = 0,otherwise = 1 |
| Unemployment | Unemployment = 0, otherwise 1 |
| Land Ownership | Land in the native place = 1, otherwise = 0 |

because the return on investment in human capital declines with an increase in age. Both the models find age to be a statistically significant factor in the migration decision. Age at the time of migration shows a positive and significant impact on decision to migrate in both the models.

Two caste variables are included in the study, that is, SC and otherwise and OBC and otherwise. The SC variable is found to be positive but a non-significant reason for migration in both the models. However, the OBC caste variable is found to be negative and significant. The study finds that migrant workers who belonged to OBC were more likely to be pulled towards urban areas rather than pushed out of their origin place.

While most of the studies have revealed that lower the level of education of the migrant workers, the greater the importance of the push factors, however, in our study, education has an insignificant impact on reason for migration in both the models. This is mainly because of the fact that our study belonged to the urban informal sector, which is not much sensitive to the level of education. Generally, the urban informal sector absorbs migrant workers with a lower level of education.

Family size shows a negative and statistically insignificant impact on decision to migrate in both the models. Better work shows a positive and statistically significant impact on decision to migrate in both the models. Lack of job opportunities, family problems, agriculture unprofitable, and land ownership show a positive and significant impact on decision to migrate in both the models. Hence, lack of job opportunities, family problems, unprofitable agriculture, unemployment, and land ownership in the native place pushed migrants towards urban areas.

## Discussion and Conclusion

It is clear from the analysis that migrants were predominantly young people in their 20s when they migrated.

**Table 10. Logit and Probit Regression Estimation**

| Variables | Logistic Regression Analysis | | | | Probit Regression Analysis | | |
|---|---|---|---|---|---|---|---|
| | ***B*** | **S.E.** | **Sig.** | **Exp *(B)*** | ***B*** | **S.E.** | **Sig.** |
| Age at the Time of Migration | 3.813 | 2.212 | **0.085** | 45.281 | 2.083 | 1.226 | **0.089** |
| Religion | 9.668 | 11.042 | 0.381 | 15803.297 | 5.493 | 6.579 | 0.404 |
| Caste _SC | 0.166 | 1.550 | 0.915 | 1.180 | 0.072 | 0.875 | 0.935 |
| Caste _OBC | -3.615 | 1.855 | **0.051** | 0.027 | -2.058 | 1.057 | **0.051** |
| Family Size | -0.307 | 0.488 | 0.529 | 0.735 | -0.186 | 0.278 | 0.505 |
| Illiterate | 5.265 | 25.939 | 0.839 | 193.370 | 3.000 | 32.343 | 0.926 |
| Primary | 4.190 | 25.901 | 0.871 | 66.003 | 2.355 | 32.333 | 0.942 |
| Middle | -6.902 | 25.978 | 0.790 | 0.001 | -3.892 | 32.349 | 0.904 |
| Matric | -7.442 | 25.985 | 0.775 | 0.001 | -4.187 | 32.352 | 0.897 |
| Senior Secondary | -5.461 | 25.911 | 0.833 | 0.004 | -3.120 | 32.335 | 0.923 |
| Better Work | 4.012 | 2.065 | **0.052** | 55.268 | 2.243 | 1.117 | **0.045** |
| With the Help of Friend & Relative | 3.440 | 1.930 | **0.075** | 31.174 | 1.998 | 1.106 | **0.071** |
| Lack of Job in Native Place | 11.104 | 3.730 | **0.003** | 66451.061 | 6.357 | 2.066 | **0.002** |
| Family Problems | 7.651 | 3.946 | **0.052** | 2103.504 | 4.258 | 2.064 | **0.039** |
| Agriculture Unprofitable | 8.621 | 4.196 | **0.040** | 5548.098 | 4.912 | 2.310 | **0.033** |
| Unemployment | 7.777 | 2.596 | **0.003** | 2384.082 | 4.503 | 1.443 | **0.002** |
| Land Ownership | 7.695 | 2.771 | **0.005** | 2197.609 | 4.357 | 1.523 | **0.004** |
| Constant | -44.944 | 31.981 | **0.160** | 0.000 | -25.401 | 33.999 | **0.004** |
| Pseudo $R^2$ | 0.8154 | | | | 0.819 | | |

Majority of the migrants were Hindu men, while women migrants constituted a smaller proportion in the urban informal sector. Most of the migrants working in the urban informal sector in Ludhiana were illiterate or had a low level of education. This is one of the reasons that they were engaged in the urban informal sector. The study also shows that most of the migrant workers were married, and they were living in another city due to responsibility of their families. The study also finds that a major share of migrant workers working in informal sectors of Ludhiana city, Punjab belonged to Uttar Pradesh and Bihar. They were attracted to Punjab because of better employment opportunities and higher wages than in the states of their origin. Majority of the workers were unemployed in their origin place. The study also finds that majority of the migrant workers came to Ludhiana city in the last 15 years. Majority of the workers got the information for obtaining the first job through relatives and friends.

The results of logistic regression and probit regression analysis show that age at the time of migration, better work opportunities, and help of friends and relatives show positive and significant relationship with the migration decision ; whereas, lack of job opportunities, family problems, unprofitable agriculture, unemployment, and land ownership in the native place show positive and significant relationship with the push reason for migration. The workers who belonged to the SC category have a positive and insignificant impact on reason for migration in both the models ; whereas, the OBC migrant workers have a negative and statistically insignificant impact on reason for migration in both the models. The study finds that migrant workers who belonged to OBC category were more likely to be pushed towards urban areas rather than pulled out of their native place. Lack of job opportunities, family problems, unprofitable agriculture, unemployment, and land ownership in the native place pushed migrants toward the urban areas. Thus, the study finds that both push and pull factors play an important role in the migration decision.

## Policy Implications

- Majority of the migrant workers were illiterate and unskilled. Hence, efforts should be made for skill development of these workers.
- Many workers who were skilled did not have any certificate of their skill. Due to a lack of a formal certification of skill, they get fewer opportunities in the labour market.
- The informal sector labour market is dominated by contractors who sometime get huge share in wages of workers. Efforts should be made to curb unfair practices followed by contractors.
- Majority of the vendors stated that they did not have any permanent location to sell their goods. The government should provide permanent location for vendors at nominal rates.

## Limitations of the Study and Scope for Further Research

During the field survey, we went to different places of Ludhiana city. The field experience was very challenging, but interesting. We faced many difficulties during data collection. In many situations, it was very difficult to get accurate responses from the respondents. As it is a study of migrant workers working in the informal sector, it was quite difficult to elicit appropriate information from them and win their trust. Majority of the respondents were very busy with their work and they had no time for the interviews. They did not know the purpose and objectives of the research work. Therefore, much of our time was devoted in explaining the objectives of the study to the respondents and winning their trust. Many apprehended adverse consequences of such research work. They doubted that the purpose of research would become the basis of an anti-migrant policy. With reference to the scope for future research in this area, there is a need for a comparative study of the socioeconomic status and problems faced by migrants and local workers in the informal sector of India.

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