

Factors Affecting Volume of Migration to the City of Pune

V. P. KHAIRKAR

Abstract : *After Independence, in an effort towards socio-economic reconstruction of the country, capital which was scarce, was invested at few select places, creating job opportunities which led to large-scale rural urban migration. The socio-economic factors affecting the volume of migration and their relative importance has been analysed for Pune city in this study.*

Introduction

People migrate from one place to another for employment. As industrialization and urbanization takes place, a greater variety of spatial differences become apparent and increase in intensity, the process being accentuated, as in all unplanned economic development, where investment in, and labour demand for the growing industries is unevenly spread in space (Ravenstein, 1885, 1889). Migration takes place due to several reasons in Indian conditions; more importantly employment opportunities and economic development stimulate migration. Factors of migration can be grouped into two broad categories. The attraction exerted by the cities in the form of employment, better educational facilities, liberal attitude, better medical facilities, better social amenities: all these constitute the 'pull factors'. Other factors are the 'push factors', literally means to eject from the villages. (Lee, 1966) These include, pressure of population on land, unemployment in villages, social inequality, natural calamities like drought, floods and lack of medical and educational facilities. To understand the variations in the volume of migration and in the

composition of migrants and variations in the direction and magnitude of migration, it is necessary to study the temporal and spatial variations in the pattern of migration.

An attempt has been made to study the reason for migration and the spatial variations in them, for the city of Pune, using secondary data from the 1991 census.

An analysis of the various socio-economic factors affecting the volume of migration in terms of the 'pull' and the 'push' factors have been taken into consideration and efforts have been made to understand the relative importance of the various socio-economic factors influencing the volume of rural to urban migration under Indian conditions.

Few hypotheses were framed and tested..

- 1) Level of urbanization has a positive relationship with the volume of migration.
- 2) Proportion of area under irrigation has an inverse relationship with the volume of migration.
- 3) Industrial unrest has a positive relationship with the volume of migration.

Methodology

To analyse the factors affecting the volume of migration, simple correlation matrices for 1991 were prepared and to determine the relative importance of various factors, a step-wise regression analysis was undertaken.

Sources of Data

Data were taken from Socio-Economic Review and District Statistical Abstract for the year 1991. In addition, General Population Tables for 1991 were used extensively for data related to the various aspects of population. Economic tables published by the Census of India, 1991 were also used to represent various aspects of the economy. Similarly, special tables for scheduled castes and scheduled tribes, published by the Census of India were

used. Disaster tables were used to study the occurrences of natural calamities.

Push – Pull Factors and Trends of Migration

The volume and direction of migration is influenced by both, push and pull factors, which work simultaneously but in varying intensity. In India, the push factors are relatively more important than the pull factors since agriculture is still the most important economic activity. In the last fifty years, due to enormous increase in population, the pressure on land has increased tremendously. This has led to large-scale movement of people from rural to urban areas. Normally people are resistant to change and move only when it is unavoidable. The push factors are therefore, more important than pull factors in the Indian set-up. This however, does not mean that the other factors are not operative. In the Indian situation, though the pull factor is not that significant, some other factors which could be taken into consideration are: employment in non-agricultural sector, particularly in industries, educational facilities, incidence of crime and availability of water supply. With respect to all these variables, Pune definitely has better infrastructure. Since 1961, the industrial employment in and around Pune has increased tremendously. Pune has a number of reputed educational institutions of long standing, also a large number of new educational institutions like the private medical and engineering colleges, management institutions which have come up in the last twenty years, have further enhanced the status of Pune as an educational centre of national repute.

Pune is fortunate in having adequate water supply to meet the growing demand, since areas in the vicinity of Pune receive more than 2500 mm of rainfall. A number of rivers, originating in the heavy rainfall zone pass through the Pune region, hence the availability of water is not likely to pose a serious problem, at least in the near future. Though with increase

in industrialization, crime rate in Pune city has increased, but in comparison to many other cities of Maharashtra, Pune is still a safer place to live in.

Role of Push Factors in Determining Migration Flows

In all, nineteen factors were taken into consideration, which might act as push factors.

- 1) Proportion of land under agriculture to total geographical area.
- 2) Proportion of land under irrigation to net sown area.
- 3) Proportion of workers to total population
- 4) Proportion of non-agricultural workers to total workers.
- 5) Proportion of industrial workers to total workers.
- 6) Proportion of agricultural workers to total workers.
- 7) Proportion of non-agricultural (other than industrial) workers to total workers.
- 8) Proportion of population in the working age group to total population.
- 9) Labour disputes and man-days lost.
- 10) Occurrences of natural calamities like droughts and floods.
- 11) Employers and employees engaged in industries.
- 12) Proportion of literates to total population.
- 13) Sex ratio.
- 14) Proportion of scheduled castes and scheduled tribes population to total population.
- 15) Proportion of urban population to total population.
- 16) Proportion of people belonging to minority communities.
- 17) Variation in population.

Table 1 : Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.00	0.12	-0.35	0.10	0.26	0.45	-0.26	0.10	-0.30	0.28	0.11	-0.16	0.27	0.10	-0.22	0.49	0.03	-0.16	0.00	0.12
	1.00	0.51	-0.66	0.12	0.50	-0.13	-0.06	0.26	0.19	0.43	0.08	-0.03	-0.04	-0.52	0.14	0.09	-0.47	0.69	0.45
		1.00	-0.30	-0.28	0.02	0.28	-0.31	0.18	-0.03	0.11	0.46	-0.35	-0.40	-0.11	-0.06	0.00	-0.06	0.27	0.16
			1.00	-0.26	-0.31	0.26	-0.18	-0.02	-0.04	-0.10	-0.06	-0.09	0.04	0.36	0.22	-0.14	0.34	-0.72	-0.19
				1.00	0.57	-1.00	0.93	0.05	0.34	-0.05	0.11	0.62	0.19	-0.36	0.29	0.56	-0.39	0.29	0.10
					1.00	-0.57	0.23	-0.25	0.27	0.50	-0.09	0.36	0.36	-0.64	0.61	0.16	-0.67	0.60	0.34
						1.00	-0.93	0.05	-0.34	0.05	-0.11	-0.62	-0.19	0.36	-0.29	-0.56	0.39	-0.29	-0.10
							1.00	0.06	0.27	-0.26	0.21	0.58	0.05	-0.14	0.06	0.50	-0.17	0.08	-0.02
								1.00	0.13	-0.21	0.20	0.03	0.06	0.12	-0.16	0.12	0.12	0.10	-0.03
									1.00	0.28	-0.07	-0.01	-0.16	-0.19	0.05	0.08	-0.12	0.27	-0.11
										1.00	-0.17	-0.18	0.33	-0.51	0.13	-0.22	-0.58	0.39	0.50
											1.00	0.07	-0.18	0.06	-0.11	0.34	-0.01	-0.08	0.03
												1.00	0.49	0.05	0.49	0.21	-0.13	0.25	0.26
													1.00	-0.26	0.19	-0.06	-0.52	0.22	0.40
														1.00	-0.08	-0.14	0.76	-0.47	-0.35
															1.00	0.06	-0.17	0.15	0.14
																1.00	-0.14	0.27	0.11
																	1.00	-0.51	-0.38
																		1.00	0.40
																			1.00

18) Density of population.

19) Availability of educational facilities.

The first factor was the proportion of workers to total population. Of the total population, if the proportion of workers is very low then it can be construed as the degree of unemployment, which indirectly reflects the lack of job opportunities. Regions where jobs are limited send large number of migrants to industrially better-developed regions like Pune. The proportion of persons in the working age group to total population is also related to the volume of migration. Because if this proportion is high it means that the region had not contributed to migration out flow. On the other hand, if this proportion is very low it shows that it is an important area of out migration in the region.

One more factor, which influences the flow of migrants, is the availability of agricultural land. A large number of workers migrate to industrialized areas from regions where the proportion of land under agriculture, to total geographical area is low. Irrigation increases

employment opportunities in agriculture and puts a check on out-migration. Dry farming areas, therefore, send more migrants than regions with irrigated agriculture. Employment in agriculture is directly related to volume of migration. Regions with higher proportion of agriculturists, therefore, send fewer migrants to industrialized areas.

The development of non-agricultural sector also restricts out migration. Regions with higher proportion of non-agricultural workers to total workers send fewer migrants to industrialized areas. Industrial areas also attract fewer migrants from regions where the non-agricultural sector other than industrial; provides employment to a large number of workers. Another aspect of the economy which influences the volume of migration, is the level of industrialization. The proportion of industrial workers to total workers could also represent the level of industrialization. As expected, industrially backward areas send larger number of migrants to industrially developed areas. Existence of a large industrial unit at

does not exert as much influence on the volume of migration as the existence of a large number of smaller units, spread evenly over the region. Employer-employee ratio, therefore, clearly shows this aspect of industrialization. For example, if employee-employer ratio is high it exerts much less influence on volume of migration in comparison with low employee-employer ratio. Industrial unrest affects flow of capital and creation of new job opportunities. Regions where industrial climate is not good, maintain a constant flow of migrants. Labour disputes and man days lost are taken as indicators to represent industrial climate since it affects the volume of migration.

Some demographic and socio cultural factors directly influence the volume of migration. One of them is the density of population. High density of population is viewed as more pressure on land, which in turn forces people to migrate in search of job opportunities. Growth of population is another equally important aspect, which affects the volume of migration. Higher growth rates invariably put greater pressure on land, thereby encouraging out-migration. Levels of urbanization also influence the volume of migration. Higher levels of urbanization are an indications of development in the non-agricultural sector. Increase in non-agricultural employment puts a brake on out migration. Regions with higher level of urbanization therefore, send fewer migrants to industrial areas. Sex ratio is another indicator, which reflects male selective migration i.e., young males dominate in out-migration, and this influences the sex composition of the population, especially in Pune city. Sending regions, therefore, generally have a high sex ratio. One of the important reasons for migration is attributed to lack of facilities for education. To pursue higher education or to take advantage of better educational facilities people move to regions having good educational institutions. Development of proper educational facilities is considered as a factor influencing the volume of migration. Literate and educated people are generally

more mobile; this is reflected in the strong association between literacy and volume of migration.

Social discrimination sometimes leads to migration. The degree of social inequality is more in small rural communities than in large metropolitan communities. Backward communities, particularly feel more secure in large urban communities. Hence the volume of migration varies with the proportion of backward communities. This trend has been further helped by the government policies of reservations in jobs to help backward communities to improve their socio-economic conditions.

Some natural calamities like drought, floods, cyclones also displace persons from rural areas. During such calamities a large number of affected people take shelter in urban areas and very few return to their villages.

Factors Affecting the Volume of Migration From Different States for 1991

Since several factors simultaneously influence the volume of migration, it was necessary to know the relative importance of these factors. To know this, two steps were taken. First, a simple correlation matrix was constructed and second, a step-wise regression analysis was carried out.

Based on 1991 data, the analysis gave the following results :

The value of co-efficient of correlation between the volume of migration and proportion of urban population to total population is positive and significant. This shows that urban communities are relatively better educated, better informed and so are more prone to move. Hence the volume of migration is directly influenced by level of urbanization.

The value of co-efficient of correlation between proportion of industrial workers to

total workers and volume of migration is positive and significant. This shows that after gaining some experience, people move to industrially developed regions for better job opportunities.

The volume of migration has positive but insignificant relation with man-days lost. This shows that if the industrial relations are not good in a region, it leads to some out migration. The value of co-efficient of correlation between the volume of migration and proportion of workers engaged in non-agricultural occupations and industries is positive and significant. This shows that people after having a few years experience at the place of origin in non-agricultural activities, tend to migrate to larger cities for better jobs. Similarly, the co-efficient of correlation between volume of migration and the proportion of literates to total population is positive but not significant. This shows that the more educated and better-qualified people are well informed and hence like to be more mobile. The value of co-efficient of correlation is positive but not significant between the volume of migration and the proportion of workers engaged in non-agricultural occupations. This shows that people after some experience, move to better paid jobs and to industrially better-developed regions.

The volume of migration has negative and significant relation with proportion of irrigated area to net sown area. This shows that increase in area under irrigation leads to greater opportunities in agriculture, which leads to a decrease in the volume of migration.

From the step-wise regression analysis it appears that the most important factor influencing the volume of migration is level of urbanization. If the proportion of urban population to total population is high, it leads to more migration because the urban communities are relatively better educated, better informed and therefore more mobile. The next important factor is the extension of area under irrigation, which enables multiple cropping. This increased the scope of employment in agriculture and consequently discourages large-scale out-migration.

Conclusion

The findings of this study show that the effects of most variables are insignificant. It is worth pointing out, however, that this only implies that they do not affect the volume of migration directly. Several of these variables influence volume of migration via their impact on more job opportunities in the formal and informal sector employment. Expected benefits from higher income also encourages rural to urban migration.

As regards the push factors, employment in the non-agricultural sector, particularly industrial sector, industrial climate, level of urbanization and level of literacy have all influenced the volume of migration directly. This is reflected in the values of co-efficient of correlation, which are positive but significant at lower levels.

The relationship between employment in agriculture, proportion of area under irrigation and proportion of people belonging to backward communities, shows a significant but negative relationship as regards their influence on volume of migration is concerned. Among the various factors the level of urbanization and proportion of area under irrigation emerge as the most important factors, influencing the volume of migration in 1991.

References

- Francis, Cherumilan. (1987): *Migration Causes, Correlates, Consequences, Trends and Policies*, Himalaya Publishing House.
- Lee, E. S. (1966): *A Theory of Migration Demography*, *Demography*, Vol.3, pp. 47-57.
- Ravenstein (1885-1889): *The Laws of Migration*, *Journal of Royal Statistical Society*, No. 48.
- Todd, D. & Daniel (1981): *Rural Out-migration in Southern Manitoba, A Simple Path Analysis of Path Factor*, *Canadian Geographer*, Vol. No. 25; No. 3.

Vijaya Khairkar

Department of Geography,
University of Pune, Pune.