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TRENDS AND SPATIAL PATTERNS OF SEX RATIO AMONG IN-MIGRANTS TO PUNJAB (2001)

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Abstract

Punjab has the second lowest sex ratio of 876 females per 1000 males in the country as per 2001 Census. Migration is perceived normally as a sex selective phenomenon and in patrilineal societies males are more prone to migrate, disturbing the sex composition not only of the source region but also of the areas of destination. The recent in-migration to Punjab, however, shows a contrary trend in which there is an excess of females over males. This paper attempts to analyze the spatial patterns of sex ratio among in-migrants to Punjab in 2001 using district wise census data.

Introduction

Sex Ratio is one of the basic attributes of population having a strong bearing on its demographic, social and economic characteristics. It affects directly the incidence of birth, death, and marriage; it appears as a differential in migrant status, occupational distribution and virtually in all other population characteristics. It is also used as a basis for distinction in almost every aspect of social structure (Gosal, 2001).

With 876 females per 1000 males, as in 2001, Punjab has one of the lowest sex ratio in the country. The state has been an area of very low sex ratio throughout the last century (Gill & Singh, 1985). The deficiency of females in Punjab's population is in consonance with the deficit of females in Indian population. This deficiency has to be viewed taking into account higher female mortality rates at all ages. The general neglect of female child and high birth rate contribute to the high female mortality at childhood and during reproductive period

(Bhutani, 1999). The practice of female infanticide in the past (Premi, 1994) and the cognizant foeticide at present (Gill, 2000) have also contributed to low level of sex ratio. Sex ratio of an area place is determined by three factors: (i) sex ratio at birth; (ii) differential in mortality of two sexes; and (iii) sex selectivity in migration. The continuous large deficit of females has been mainly attributed to higher female mortality. However, more recently differential sex selectivity in migration seems to be primarily responsible for shaping out spatial patterns of sex ratio in the state at the sub-regional level (Gill, 2000).

In 2001 the Census of India reported 1.7 million in-migrants, classified on the basis of place of last residence, from other states and union territories of India, to Punjab. These in-migrants comprising 47 per cent males and 53 per cent females were 7.18 per cent of the total population of the state. Their proportion was only 4.11 per cent in the rural areas whereas in the urban areas they were 13.17 per cent of the

total urban population of the state. The in-migrants to Punjab have been showing an excess of females from 1981 onwards. However, the total and local population is showing shortage of females (Table 1). This excess of female in-migrants, particularly in the case of Punjab, which has a long history of lower sex ratios needs to be studied.

Study Area

The state of Punjab has been taken as the study area. It is one of the most prosperous agricultural states of India. It is located in the north-western part of the country. It is the western component of Great Northern Plains or the Satluj-Ganga Plains of India. The study area lies within the latitudinal extension of 29° 30' north to 32° 32' north and the longitudinal extension of 73° 55' east to 76° 50' east (Fig. 1). Punjab is predominantly an agricultural state. It is divided into three cultural-ecological regions of *Majha*, *Doaba* and *Malwa*. According to 2001 census, nearly, 70 per cent of its total population lived in 12278 inhabited villages of seventeen districts. Almost 84.18 per cent of its total geographical area is under plough. Agricultural workers form about 39 per cent of the total workers in the state. Punjab's industrial

structure is dominated by small scale and unregistered tiny units. In 2008 Punjab had 17349 registered factories and 593462 workers, but the number of small scale industries was staggering 167722 and the number of workers was 954769. The industrial sector in Punjab contributed 22.74 per cent of the total Gross Domestic Product in 2008 (Punjab Statistical Abstract, 2009). Migrants have been coming to Punjab ever since opportunities in agriculture were created by the state's agricultural leap forward under the Green Revolution which also resulted in higher general prosperity and increased household incomes. The new agricultural development created additional demand for labour which was met by states across northern and central India (Government of Punjab, 2004).

Objective

The main objective of the present study is to analyse the trends and patterns of spatial distribution of sex ratio among in-migrants to Punjab in 2001.

Database and Methodology

The main sources of data for the study are the Migration Tables of Punjab brought out

Table 1
Punjab: Trends of Sex Ratio, 1981-2001

Year	Females per Thousand Males		
	In-migrants	Total Population	Local population*
1981	1179	879	864
1991	1432	882	857
2001	1112	876	860

* Local population is Total Population minus in-migrants

Source: Computed from:-

- (i) Census of India (1981): Table D 2, Migration Tables of Punjab, Series-17, Part V-A & B, Director of Census operations, Punjab.
- (ii) Statistical abstract of Punjab (1991): Publication no. 687, Economic and statistical Organisation, Government of Punjab (India).
- (iii) Census of India (1991): Table D 2, Migration Tables, Punjab, data available on CD.
- (iv) Census of India (1991): Primary Census Abstract, Punjab, data available on CD.
- (v) Census of India (2001): Table D 2, Migration Tables, Punjab, data available on CD.
- (vi) Census of India (2001): Primary Census Abstract, Volume 1, Punjab, data available on CD.

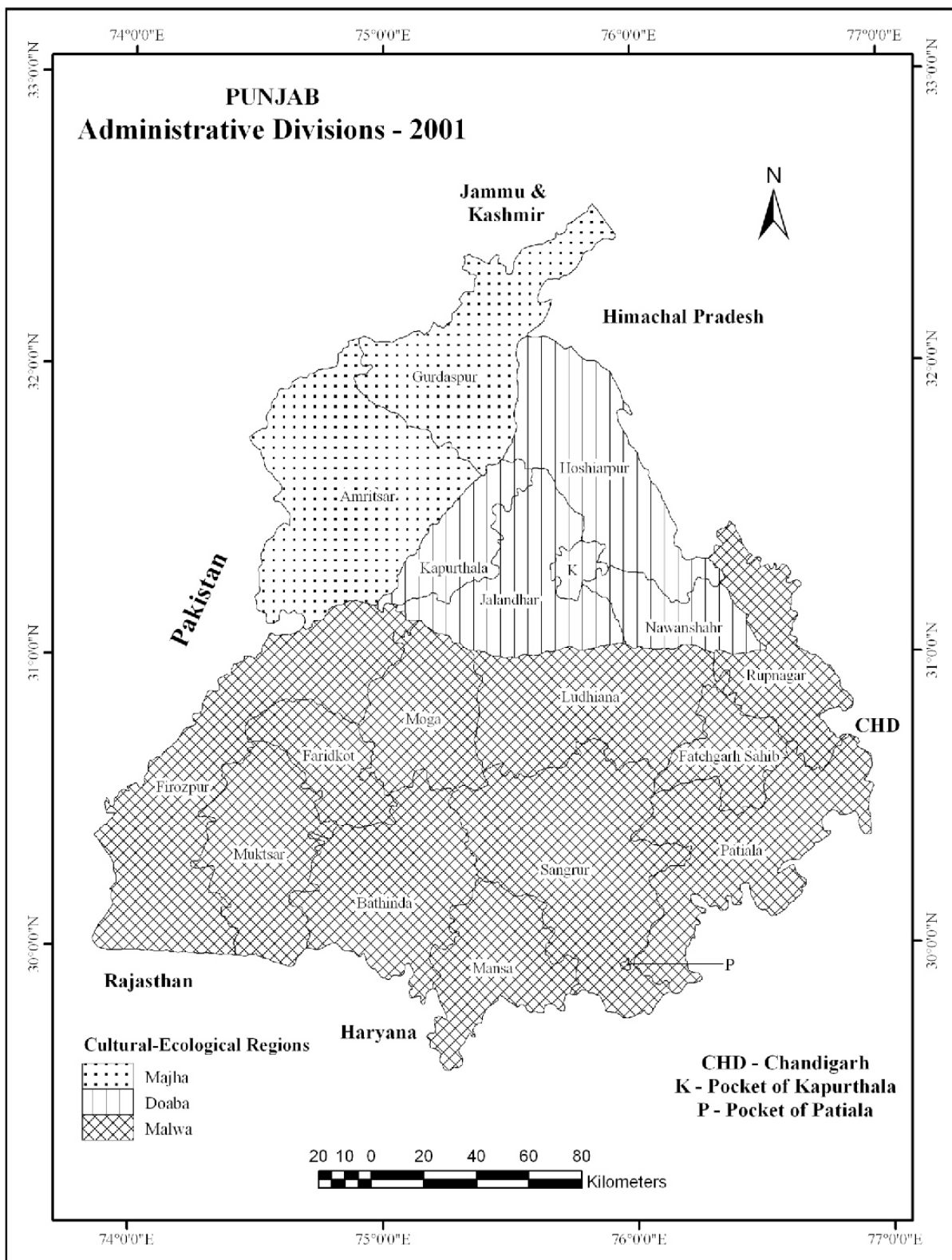


Fig. 1

by the 2001 Censuses. Earlier Censuses reports have also been consulted to identify trends of migration in recent decades. The data have been processed, tabulated and presented in the form of tables and choropleth maps to identify and describe the spatial patterns of sex ratio among in-migrants to Punjab.

Discussion and Results

As per 2001 Census, there are 1112 females per thousand males among the in-migrants as against 860 among the local population of Punjab. In 1991 the sex ratio among in-migrants was 1432 as compared to 857 for the local population of the state (Table 1). Two facts clearly emerge from these figures; (i) the sex ratio among in-migrants is higher than that of the local population of the state and (ii) there is a considerable excess of females over males among the in-migrants. The excess of females over males among in-migrants follows the general trend prevailing in many countries of Asia but it is markedly different from what is observed in the developed parts of the world. In the former, migration of females is not for economic reasons but it is due to the social reasons viz. marriage or family unification.

Regardless of the view that migration, in or out, in case of India does not make any impact as it is of insignificant magnitude, but it could be clearly noticed that in case of Punjab if in-migrants are deducted from the total population then the sex ratio in the state drops considerably. This is true for all the previous three decades. Thus it can be stated that in-migration to Punjab is improving the existing low sex ratio of the state. However, the factors contributing to the general excess of females over males among in-migrants do not operate uniformly in rural and urban areas of Punjab. Consequently, there are significant rural-urban differentials as well as spatial inequalities in the

sex ratio of the in-migrant population as well as local population of the state.

Rural-Urban Differential

As in several other attributes of in-migrants, sex ratio in the total, rural and urban population presents a contrasting picture (Figs. 2, 3 & 4). According to 2001 Census, there were, on an average, 1828 females per thousand males among the in-migrant population in rural areas of Punjab as against 830 in urban areas (Table 2). Seven districts have a sex ratio of less than the state average while six districts recorded a sex ratio below 1000. The rest of the districts witnessed a sex ratio higher than the state average. The rural-urban differential in sex ratio was 998 in 2001. On the other hand in the local population (Total Population – In-migrants), the rural-urban differential with a sex ratio of 864 in rural areas and 852 in urban areas was quite narrow.

The above disparity notwithstanding, the rural–urban differential in the sex composition among in-migrants is mainly due to two reasons; (i) large scale female migration due to marriage from the adjoining states and (ii) in-migration of males from other states who had initially moved to the villages of Punjab and later on to the towns/cities in search of better jobs. While moving to the cities/towns the male in-migrants left their families in the rural areas to which they had initially migrated. The higher sex ratio of the in-migrants in villages as compared to urban areas is true of almost all the districts of the state.

The rural-urban differential in sex ratio varies in case from 2456 females per thousand males in Mansa district to -166 in Nawanshahr district. The rural-urban differential is more pronounced in six districts (Mansa, Patiala, Bathinda, Ferozpur, Sangrur and Muktsar) of *Malwa* region, whereas it is least in the Nawanshahr district of *Doaba* region. Table 2

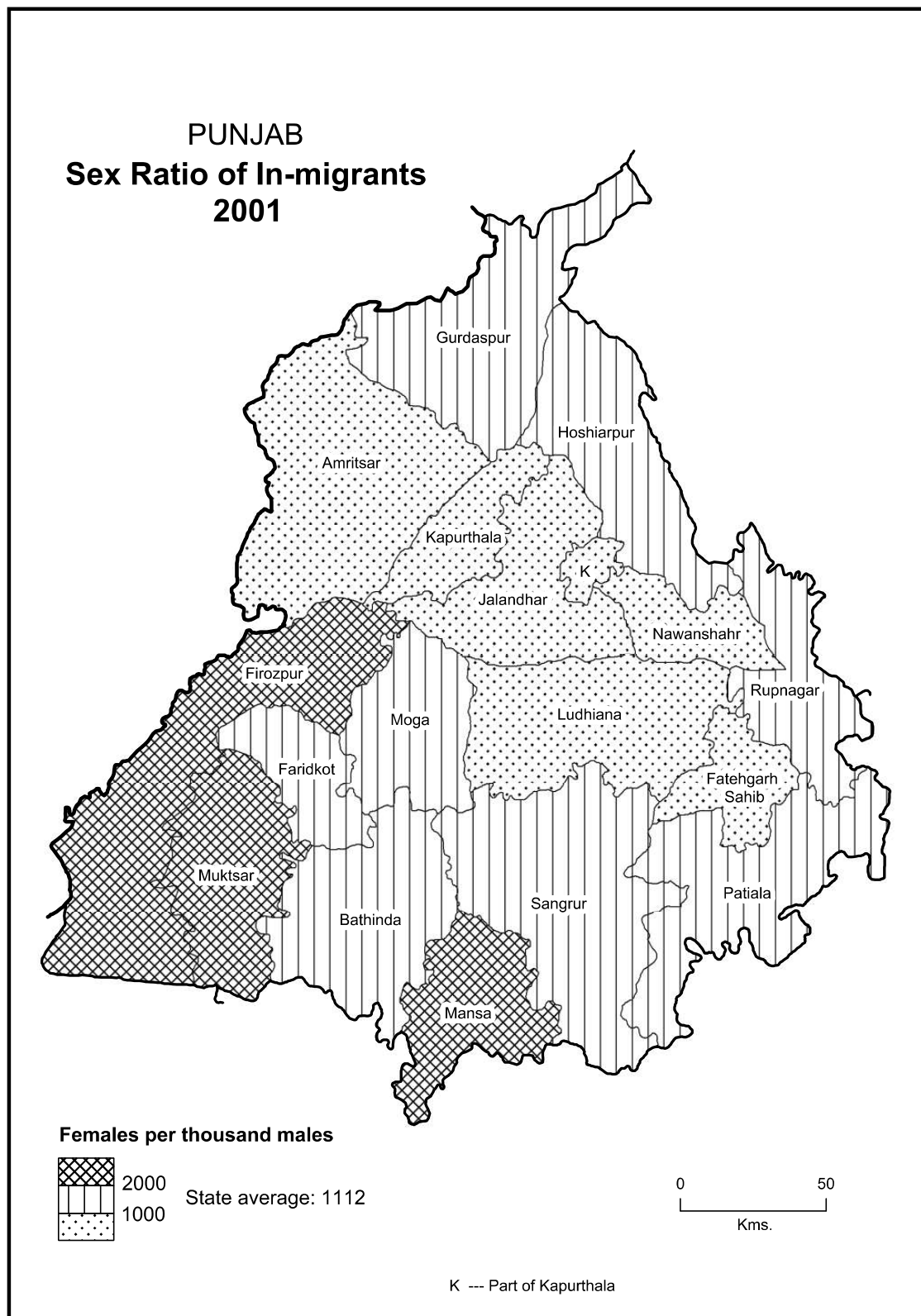


Fig. 2

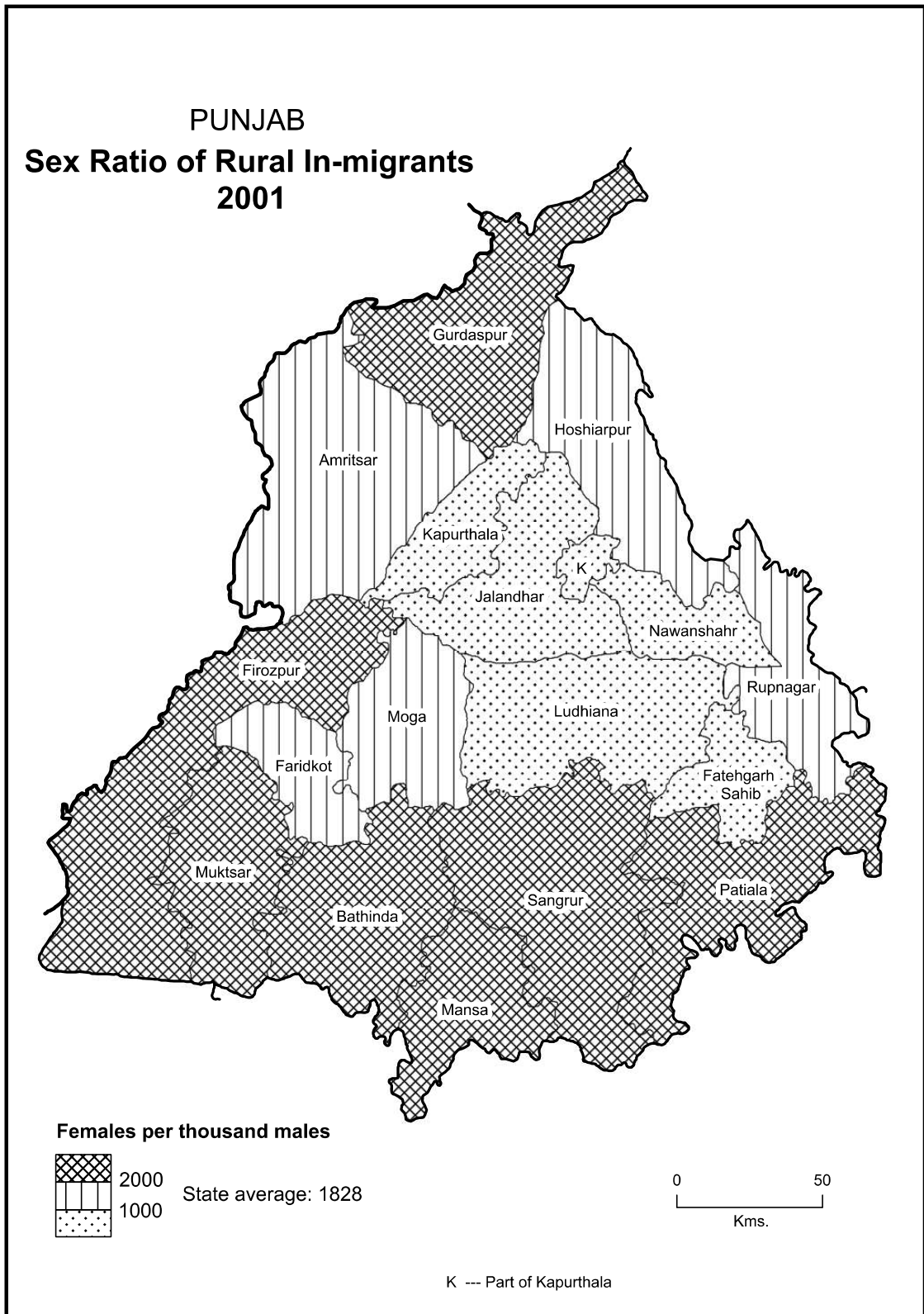


Fig. 3

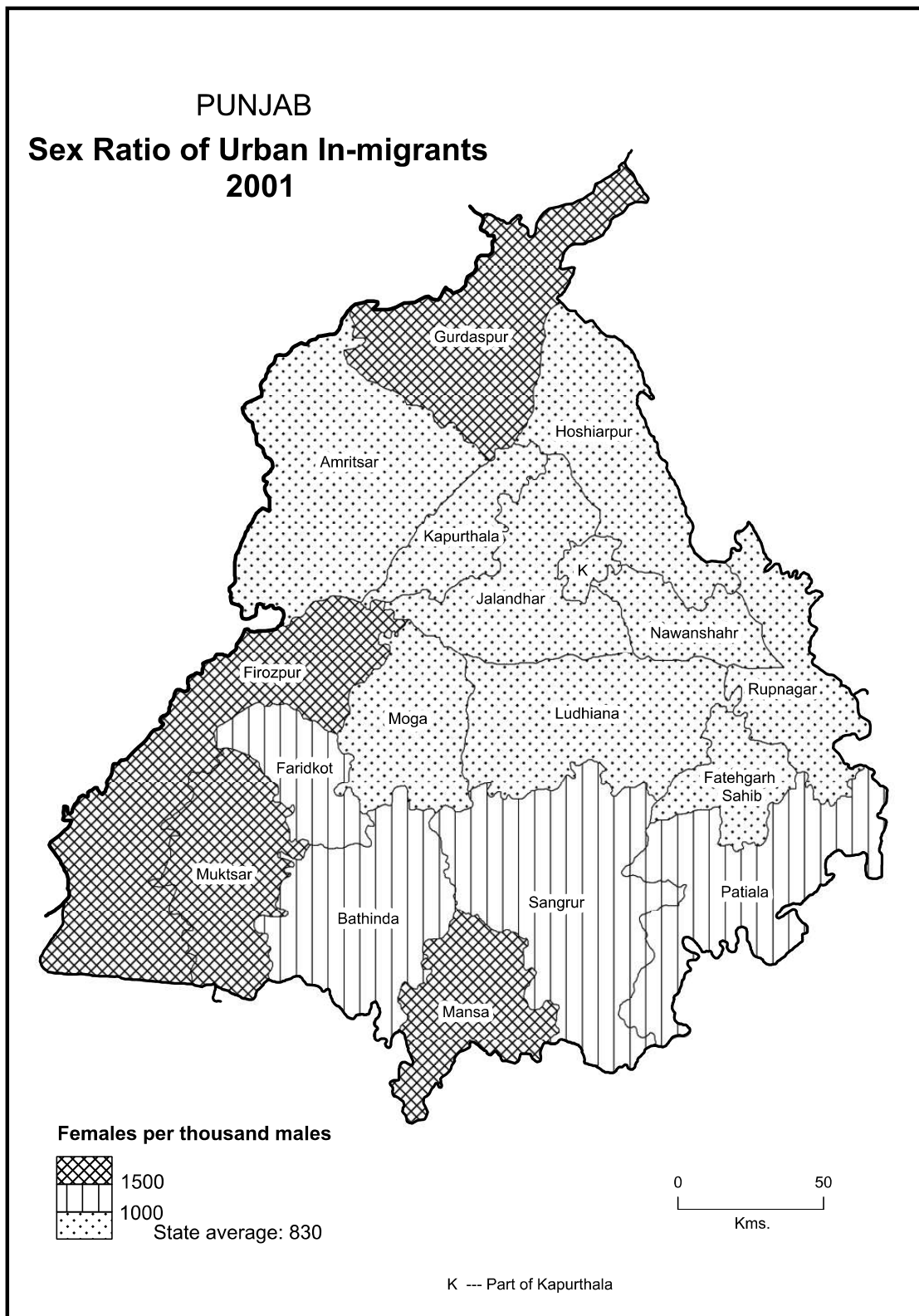


Fig. 4

Table 2
Punjab: Sex Ratio, 2001

State/District	Total Population			Rural Population			Urban Population			In-migrants
	Total	In-migrants	Local	Total	In-migrants	Local	Total	In-migrants	Local	R-U Differential
PUNJAB	876	1112	860	890	1828	864	849	830	852	998
Mansa	880	3158	808	879	4301	807	882	1845	811	2456
Patiala	868	1799	795	868	3151	776	870	1082	837	2069
Bathinda	870	1825	823	872	3026	823	864	1227	821	1798
Firozpur	885	2358	833	894	3219	843	860	1601	805	1619
Sangrur	871	1569	847	871	2257	846	870	1141	850	1116
Muktsar	891	2536	841	891	3045	845	888	1948	828	1097
Gurdaspur	890	1993	859	897	2480	868	870	1515	833	966
Hoshiarpur	935	1219	919	946	1478	925	891	887	892	591
Amritsar	876	908	875	885	1385	881	862	815	865	570
Rupnagar	871	1119	830	870	1498	822	874	929	851	569
Moga	887	1096	883	888	1346	883	884	931	881	415
Fatehgarh Sahib	854	831	856	861	961	857	838	754	855	208
Kapurthala	888	764	897	910	857	911	845	728	864	130
Ludhiana	824	569	875	879	673	890	783	554	860	119
Jalandhar	887	798	893	912	869	914	860	777	870	92
Faridkot	883	1488	862	891	1547	881	867	1462	827	85
Nawanshahr	914	867	916	914	826	918	913	992	906	-166

Source: Computed from:-

- (i) Census of India (2001): D 2 Table, Migration Tables, Punjab, data available on CD.
(ii) Census of India (2001): Primary Census Abstract, Punjab, data available on CD.

reveals that in 2001 more males came to Punjab. Nawanshahr district had a differential of -166 points. In Nawanshahr district, the sex ratio is higher in urban areas as compared to the rural areas.

The general male-selective in-migration to towns and cities is because of higher cost of living in towns and cities, more employment opportunities for males than females, acute problem of housing, etc. That is why the male in-migrants in Punjab who brought their families with them leave their families in rural areas of the state while migrating to the urban areas for seeking better employment opportunities. The joint family system prevailing in the countryside assures them security and safety.

The rural-urban differential in sex ratio is much lower in *doaba* region than in *majha*

and *malwa* regions (Table 3). However, this is true only for the in-migrants. From *doaba* region there is a long history of male selective emigration to foreign countries from rural areas (Mehta, 1990) and in-migration from other parts of the country to the two major urban centres of the region viz. Jalandhar and Phagwara.

In relative terms, the sex ratio, both of the in-migrants and local population is much lower in large cities than in small towns within the state. The larger cities, in particular, have a greater deficiency of females (Table 4). The higher cost of living and lack of housing facilities are serious deterrents to family migration to large cities. The lowest sex ratio of 533 females per thousand males was recorded in Ludhiana city, indicating large scale male migration to the city. Ludhiana district had

Table 3
Punjab: Cultural-Ecological Region-wise sex ratio, 2001

Cultural-Ecological Regions	Place of Residence	Females per Thousand Males		
		In-migrants	Total Population	Local Population*
<i>Majha</i>	Total	1312	882	868
	Rural	2090	891	875
	Urban	999	864	855
<i>Doaba</i>	Total	914	905	905
	Rural	1114	925	918
	Urban	795	866	875
<i>Malwa</i>	Total	1135	864	842
	Rural	2051	878	841
	Urban	815	839	843

* Local Population is Total Population minus in-migrants

Source: Computed from:-

- (i) Census of India (2001): D 2 Table, Migration Tables, Punjab, data available on CD.
(ii) Census of India (2001): Primary Census Abstract, Punjab, data available on CD.

Table 4
Punjab: Sex Ratio among In-migrants to Class I Cities, 2001

City	2001
Ludhiana	533
Phagwara*^	650
Jalandhar^	696
Amritsar^	768
Malerkotla*	773
Khanna*	804
Hoshiarpur	848
S.A.S.Nagar (Mohali)*	849
Moga^	873
Patiala^	923
Bathinda	1002
Batala^	1485
Pathankot^	1601
Abohar	1731

Note: *Class I city included in 2001

^ Includes Urban Agglomerations population in 2001

Source: Computed from:-

Census of India (2001): D 0603 Table, Migration Tables, Punjab, data available on CD.

4363 registered factories and 42232 small scale industries in 2001 which employed 152430 and 265871 number of workers respectively (Punjab Statistical Abstract, 2001). Majority of these factories are located in and around Ludhiana city and these employed a large number of migrant labourers. However, cities like Bathinda, Abohar, Moga and Pathankot which are located near the state boundaries have larger number of female migrants who migrated to these cities after marriage. Batala has a large number of small scale manufacturing units, but here also the number of male in-migrants is quite small as compared to that of female in-migrants.

The comparatively lower sex ratio of Phagwara, Jalandhar and Hoshiarpur cities is partly the result of large scale emigration of males to other countries, particularly to Canada, USA, UK, and Gulf countries. The predominance of females in four cities of the state namely Bathinda, Batala, Pathankot and Abohar is partly attributable to female in-migration due to marriage but largely due to male selective out-migration from these cities. A number of industries from Gurdaspur district, particularly from Batala city were up rooted and relocated in Faridabad and Panipat cities in Haryana due to disturbed political conditions in Punjab during the 1980's. These industrialists not only shifted their machines but also the local skilled labour, particularly males, from Gurdaspur. The males thus migrating due to a shift in their jobs, left their families behind which resulted in a sharp change in the sex composition of this city. The families which were left behind comprised mainly of females who had migrated to this city after their marriage from the neighbouring states of Jammu & Kashmir and Himachal Pradesh.

In 2001 ten urban centres displayed a sex ratio below 1000 (Table 4). This was the result of increased male selective in-migration

to the urban centres of the state. The number of urban centres depicting higher sex ratio was four in 2001. The sex ratios of urban centres like Phagwara, Jalandhar, Amritsar, Moga, Patiala, Batala and Pathankot was low in 2001 if compared with previous Census data. The possible reason could be that these urban centres also included the population of urban agglomerations in 2001.

Thus, population size of cities, their functions, nature of industries, employment opportunities for females and the general social conditions are the factors responsible for the rural-urban differential in sex ratio among in-migrants. Apart from the socio-economic determinants, the cultural factors have also played an equally important role in determining the rural-urban differential in sex-ratio among in-migrants.

Spatial Patterns

The spatial patterns of sex composition among in-migrants displayed significant spatial variations in 2001 (Fig.2). Punjab had an average sex ratio of 1112 females per thousand males among in-migrants. Among the various districts of the state, Mansa recorded the state's highest (3158), while Ludhiana witnessed the lowest (569) sex ratio. In six districts of Punjab viz., Amritsar, Nawanshahr, Fatehgarh Sahib, Jalandhar, Kapurthala and Ludhiana, the male in-migrants are in excess of female in-migrants because traditionally these districts had industrial units in public as well as private sectors providing employment to males. In the remaining districts female in-migrants are in excess of male in-migrants due to large scale female marriage migration. Another very important observation from Fig. 2 is that those districts which are sharing its boundary with some neighbouring state have higher female in-migrants due to marriage. In fact all the districts bordering Haryana have very high or high sex

ratio. Whereas the inner districts like Ludhiana, Fatehgarh Sahib, Nawanshahr, Kapurthala, Jalandhar and Amritsar which are not in close proximity to any neighbouring state have more male in-migrants particularly from Uttar Pradesh and Bihar. Thus they have very low sex ratio.

Following three types of areas are identified (Fig.2):

1. Areas with very high sex ratio (more than 2000 females per thousand males)
2. Areas with high sex ratio (1000-2000 females per thousand males)
3. Areas with low sex ratio (less than 1000 females per thousand males)

1. Areas of Very High Sex Ratio among In-migrants (more than 2000 females per thousand males).

The preponderance of females over males has been an unusual phenomenon in the Indian context in general and more particular in case of Punjab where there is a recorded history of shortage of females from the 1901 census onwards. However the sex composition among in-migrants is depicting a very high sex ratio, which is quite contrary to the general trend prevalent in the state.

Out of 17 districts in 2001, three (Mansa, Muktsar and Ferozpur) had more than 2000 females per thousand males. Since Mansa district shares its boundary with the state of Haryana, therefore there had been large scale female in-migration from Haryana due to marriage and consequently higher sex ratios. In Mansa district the sex ratio among in-migrants was 3158 females per thousand males. Of the total in-migrants, 75.95 per cent were females and among them nearly 80 per cent were from the neighbouring state of Haryana. Similarly in case of Muktsar district 71.72 per cent of its in-migrants were females and 80 per cent were from the neighbouring states of Haryana and

Rajasthan. The reason for their migration was marriage. In Muktsar, and Ferozpur districts the sex ratio among in-migrants was 2536 and 2358 females per thousand males respectively. High sex ratio in these districts may be attributed to large scale marriage in-migration of females from the surrounding states of Rajasthan and Haryana. Ferozpur received 73 per cent of the female from the states of Rajasthan and Haryana. Marriage was the main reason for migration of females because the people of the areas across the state borders have shared a common culture and therefore inter-state marriages are very common in this area.

2. Areas of High Sex Ratio among In-migrants (1000 - 2000 females per thousand males).

There are 8 districts in the state where there are more than 1000 female in-migrants per thousand males (Fig.2). These are Gurdaspur (1993), Bathinda (1825), Patiala (1799), Sangrur (1569), Faridkot (1488), Hoshiarpur (1219), Rupnagar (1119) and Moga (1096). The main reason for more female in-migrants in these is also marriage. In Gurdaspur district two-third of total in-migrants were females and within them near about 60 per cent were from Jammu & Kashmir and Himachal Pradesh. The reason for their migration was marriage. In case of Jammu & Kashmir it was due to family migration. In case of Bathinda, Patiala and Sangrur the reasons which have been stated above for higher sex ratio in Mansa, Muktsar and Ferozpur also hold true because the state boundaries came much later between these districts and the corresponding districts of Ganganagar in Rajasthan, Sirsa, Hisar, Jind, Kaithal, Kurukshetra and Ambala in Haryana. Since they share common culture, heritage and lineage therefore even today marriages are solemnized between people living on the other side of the boundaries. Faridkot and Moga

districts also received more female in-migrants due to marriage. In these two districts the proportion of females from Uttar Pradesh and Bihar was considerable. In case of Moga maximum number of female in-migrants was recorded from Uttar Pradesh. Thus reaffirming the earlier statement that the male in-migrants while moving to the urban areas of the state leave their families in the rural areas of the state where they had initially migrated. In Hoshiarpur and Rupnagar districts large number of female in-migrants were enumerated from the near by states of Himachal Pradesh and Haryana.

3. Areas with low sex ratio (less than 1000 females per thousand males)

There are six districts where the sex ratio of the in-migrants is below 1000 females per thousand males. These districts are Amritsar (908), Nawanshahr (867), Fatehgarh Sahib (831), Jalandhar (798), Kapurthala (764) and Ludhiana (569). Ludhiana is the most developed district of Punjab. It has the first million city of the state. The district is renowned for small scale industries not only in Punjab but also throughout India. In fact, Ludhiana city is called "small scale Industrial Capital of India" owing to its premier position in hosiery manufacturing, engineering goods, cycle and sewing machine industry. It is also called "Manchester of Punjab" as it has come to occupy top position in industries in the state (District Census Handbook, Ludhiana, 1991). Ludhiana district had 4363 registered factories and 42232 small scale industries in 2000 which employed 152430 and 265871 number of workers respectively (Punjab Statistical Abstract, 2001). The area around Ludhiana city has seen rapid growth of agricultural output as well as development of a dynamic urban sector. In both rural and urban areas there is capital accumulation, technological innovation

and a large and growing dependence on wage labour. Thus, there has been increasing demand for migrant labourers in the district. Thousands, rather lakhs, of migrants from Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh have been attracted by this opportunity. About 25 per cent of the total population of Ludhiana city comprises of migrants from other states. However, the male and female in-migrants are about 28 and 20 per cent of the total population of the city's male and female population. The sex ratio of urban as well as the rural areas of the district (554 and 673 females per thousand males) reveals a huge deficiency of female in-migrants.

The district of Fatehgarh Sahib in the year 2000 had 417 registered factories and 3866 small scale industries which employed 16943 and 19215 workers (Punjab Statistical Abstract, 2001). These also included the steel industry in Mandi Gobindgarh which is highly dependent on the migrant labourers from Uttar Pradesh, Bihar and Uttarakhand (Mehak, 2010). This dependence of industrialists on the migrant labourers has led to the lower sex ratio in the district. Kapurthala is mainly an agricultural district because 67.33 per cent of its population resided in the rural areas. However nearly 70 per cent among in-migrants were enumerated in the urban areas of the district and majority of them (58 per cent) were males. In 2000 there were 390 registered factories and 7792 small scale industries (Punjab Statistical Abstract, 2001) in Kapurthala which also included the Rail Coach Factory. These factories provided employment to 16,264 & 25,119 persons. These industrial units required labourers which were provided by in-migrants. The lowest sex ratio in 2001 in these districts was due to large scale male selective in-migration from Uttar Pradesh and Bihar.

Rural-Urban Differentials

The rural-urban difference in sex ratios among in-migrants was very high in 2001 (Fig. 3 & 4).

The outer districts of the state received large number of female in-migrants from the neighbouring states. This migration of females was attributed to marriage. Rural areas of seven districts viz. Mansa (4301), Firozpur (3219), Patiala (3151), Muktsar (3045), Bathinda (3026), Gurdaspur (2480) and Sangrur (2257) had a sex ratio of above 2000 females per thousand males. All these districts received a large number of female in-migrants from the neighbouring states of Haryana, Rajasthan, Himachal Pradesh and Jammu and Kashmir due to marriage. Since Gurdaspur and Firozpur districts are border districts, therefore, lack of developmental activities in these two districts has led to large scale exodus of rural males in search of jobs in other districts of the state and other states of the country. Gurdaspur district has been experiencing male out-migration from rural areas due to; (i) worsening water logging problem with the attendant soil efflorescence hazard; (ii) feeling of insecurity due to the proximity to the international border; and (iii) recruitment of rural males in army. Firozpur district also lies along the international border and because of this reason it has failed to attract its due share of capital and development infrastructure, and consequently a significant number of its males have been trickling out for employment elsewhere (Gill & Singh, 1985). Thus these two districts have higher sex ratio in the rural areas due to female marriage migration and out-migration of males leaving their families behind.

Jalandhar, Kapurthala, Nawanshahr, Ludhiana and Fatehgarh Sahib had a sex ratio of less than 1000 in the rural areas (Table 2 & Fig. 3). Since Jalandhar, Kapurthala, Ludhiana and Fatehgarh Sahib have a large number of

industrial units. These industrial units require labourers which were provided by in-migrants. In view of the fact that living in urban areas is costly, these labourers lived in the rural areas in the vicinity of urban areas. However Nawanshahr, Jalandhar and Kapurthala districts have a long history of large scale emigration to other countries of the world particularly to Canada, USA, UK, and Gulf countries. In these districts many families from rural areas and in some cases the whole villages have migrated to the foreign shores. The people who had agricultural land before migrating had made the in-migrants from Uttar Pradesh and Bihar as the care takers of their agricultural farms and houses. These in-migrants work as well as live in the rural areas of these districts. This reason is also responsible for lower sex ratio among rural in-migrants in these districts.

The urban areas of the state showed a smaller number of female in-migrants. Nine districts had a sex ratio of less than 1000, depicting large scale male selective in-migration to the urban areas of these nine districts (Fig. 4). The same reasons hold true in this case also i.e. living in urban areas is costly and also there is scarcity of housing facilities in urban areas which act as deterrents for family migration. The migration to urban areas is more male selective.

Only four districts viz. Gurdaspur, Firozpur, Muktsar and Mansa displayed a sex ratio of more than 1500 females per thousand males. This excess of females in the urban areas of these districts was the result of marriage migration from the neighbouring states of these districts.

The two districts of *Majha* region witnessed contrasting trends in the sex ratio among their in-migrant population. High sex ratio in Gurdaspur district can be partly attributed to male selective out-migration due to distress agricultural conditions and female

in-migration associated to marriage whereas in Amritsar district it was due to large scale in-migration of male population to the city of Amritsar.

The recent improvement in urban sex ratio is mainly associated with; (i) growing incidence of family migration as well as of male followed by female migration as against excessively male-selective migration in the past and (ii) more male migrants arrived in the state than females. This statement holds true when seen against the backdrop of manifold increase in the number of male in-migrants from Bihar.

Conclusions

The sex ratio among in-migrants is more than that of the local population of the state. There is a considerable excess of females over males among the in-migrants. Thus, in-migration to Punjab is improving the already low sex ratio of the state. The rural-urban differential in sex ratio is much lower in *doaba* region than in *majha* and *malwa* region. The sex composition among the in-migrants is much higher than that of the general population of Punjab. Only in five districts the sex ratio among in-migrants is below the sex ratio of total population and it is due to more male-selective in-migration in these districts. There is a significant rural-urban differential in the sex ratio, largely because of female in-migration due to marriage from the adjoining states and migration of male in-migrants from villages of Punjab to towns/cities in search of better jobs and leaving their families behind in the rural areas. The higher cost of living, scarce and expensive housing facilities and inadequacy of common amenities in growing cities put some restrictions on family migration.

The population size of cities, their functions, nature of industries, employment opportunities for females and the general social

conditions are the factors which have been associated with the rural-urban differential in sex ratio and spatial variations therein. Apart from the socio-economic determinants of rural-urban differential in sex ratio of the in-migrants as well as local population, the cultural factors have also played an equally important role. The above observations with regard to rural-urban sex ratio among the in-migrants in Punjab present a picture which is quite contrary to what is prevalent in the developed countries of the world where urban population is generally characterized by excess of females.

The districts which share its boundary with some neighbouring states have more female in-migrants due to marriage. In fact all the districts bordering Haryana have high to very high sex ratio. Whereas the inner districts like Ludhiana, Fatehgarh Sahib, Nawanshahr, Kapurthala, Jalandhar and Amritsar which are not in close proximity to any neighbouring state have more male in-migrants particularly from Uttar Pradesh and Bihar.

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