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Spatial Patterns of Sex Ratio Among In-Migrants To Punjab (1991-2001)

KEYWORDS

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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 of in-migrants to Punjab in 1991 and 2001 using district wise census data. There has been a general decline in the sex ratio of the state and that among the in-migrants. The in-migrant's sex ratio has declined from 1432 in 1991 to 1112 in 2001. This decline in the sex ratio is largely due to male selective in-migration to the urban areas of state from Uttar Pradesh and Bihar.*

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 in virtually 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 had one of the lowest sex ratios in the country. The state has been an area of very low sex ratio throughout the last century (Gill & Singh, 1985, p.34). The deficiency of females in Punjab's population is in consonance with the deficiency of females in Indian population. This deficiency has to be viewed in the historical context of the country's comparatively higher female mortality 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, p.158). The practice of female infanticide in the past (Premi, 1994, p.41, 42) and the cognizant foetocide at present (Gill, 2000, p.80) have also contributed to low level of sex ratio.

Sex ratio of a place is determined by three factors:

(i) sex ratio at birth;
(ii) differential 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 were 7.18 per cent of the total population of the state, comprising 47 per cent males and 53 per cent females. 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 (Table 1). However, the total and local population is showing shortage of females. This excess of females in Indian scenario, that too particularly in case of Punjab which has a long history of lower sex ratios needs to be studied.

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

	Females per Thousand Males		
Year	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.

Study Area

Punjab is one of the most prosperous agricultural states of India. It is located in the north-western part of the country. 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). It is divided into three cultural-ecological regions of Majha, Doaba and Malwa.

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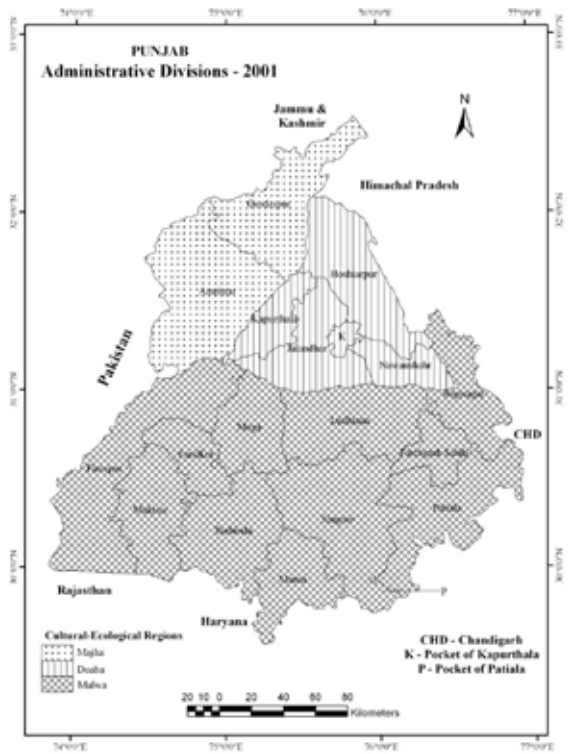

Fig.1

Objective

The main objective of the present study is to analyse the patterns of spatial distribution of sex ratio of the in-migrants to Punjab in 1991 and 2001.

Data and Methodology

The main sources of data for the study are the Migration Tables of Punjab brought out by the 1991 and 2001 Censuses. References have also been made to the earlier Censuses to identify trends in recent decades. The data has been processed, tabulated and represented in the form of tables and choropleth maps to identify and describe spatial patterns of sex ratio of in-migrants to Punjab.

Discussion and Results

The rural-urban differential in sex ratio is much lower in doaba region than in majha and malwa. 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 (Table 2).

Table 2

Punjab: Folk Region wise sex ratio, 1991

		Females per Thousand Males		
Cultural-Ecological Regions	Place of Residence	In-migrants	Total Population	Non in-migrant population*
Majha	Total	1801	885	865
	Rural	2544	886	868
	Urban	1370	882	859
Doaba	Total	1107	906	897
	Rural	1286	915	905
	Urban	978	882	872
Malwa	Total	1472	873	841
	Rural	2688	879	839
	Urban	976	859	844

* Non in-migrant Population is Total Population minus In-migrants

Source: Computed from:-

(i) Census of India (1991): D 2 Table, Migration Tables, Punjab, data available on CD.
(ii) Census of India (1991): Primary Census Abstract, Punjab, data available on CD.

According to 1991 Census, there were on an average 2306 females per thousand males among the in-migrant population in rural areas of Punjab as against 1014 in urban areas. In the local population (Total Population – In-migrants), with a sex ratio of 859 in rural areas and 852 in urban areas the rural-urban differential was quite narrow. The rural-urban differential in sex ratio varies from 2703 females per thousand males in Bathinda district to -83 in Jalandhar district. The rural-urban differential is more in four districts (Bathinda, Firozpur, Patiala and Sangrur) of Malwa region, whereas it is least in the two districts (Kapurthala and Jalandhar) of Doaba region. In Jalandhar district, the sex ratio is higher in urban areas than in villages (Table 3).

Table 3
Punjab: Sex Ratio, 1991

	Total Population			Rural Population			Urban Population			In-migrants R-U Differential
	Total	In-migrants	Non in-migrants	Total	In-migrants	Non in-migrants	Total	In-migrants	Non in-migrants	
Punjab	882	1432	857	888	2306	859	868	1014	852	1292
Bathinda	880	2711	828	881	3950	825	875	1247	836	2703
Firozpur	884	2112	853	896	3552	853	887	1520	855	2032
Patiala	880	2135	814	874	3370	799	895	1275	825	2095
Sangrur	870	1898	845	867	3089	839	881	1116	867	1973
Gurdaspur	903	2467	869	905	2780	872	895	1895	841	885
Ropnagar	870	1274	821	870	1818	817	870	954	840	864
Faridkot	882	1981	857	880	2396	860	887	1617	849	759
Hoshiarpur	919	1397	900	925	1683	902	890	927	886	756
Amritsar	873	1339	863	871	1936	865	876	1214	858	722
Ludhiana	844	754	833	879	1015	876	832	722	828	293
Kapurthala	896	732	903	910	808	913	877	713	877	95
Jalandhar	899	1064	892	907	1005	905	885	1088	887	-83

Source: Computed from:-

(i) Census of India (1991): D 2 Table, Migration Tables, Punjab, data available on CD.
(ii) Census of India (1991): Primary Census Abstract, Punjab, data available on CD.

In 2001, 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. 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, the rural-urban differential was quite narrow. 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, Firozpur, Sangrur and Muktsar) of Malwa region, whereas it is least in the Nawanshahr district of Doaba region (Table 4).

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Table 4
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	883	1858	880	879	4303	887	882	1848	811	2456
Patiala	868	1799	795	888	1151	778	870	1082	837	2069
Bathinda	870	1825	853	872	3006	855	864	1227	821	1798
Firozpur	885	2358	833	894	3219	848	860	1600	805	1619
Sangrur	873	1569	867	875	2257	868	870	1141	830	1114
Muktsar	891	2238	841	891	3042	843	888	1948	825	1097
Gurdaspur	890	1993	850	897	2480	868	870	1515	835	966
Hoshiarpur	935	1219	919	946	1478	925	891	887	892	591
Amritsar	876	908	875	881	1161	881	862	815	865	[illegible]
Rupnagar	871	1119	850	870	1498	822	874	929	851	569
Moga	887	1096	883	888	1346	883	884	931	881	415
Fatehgarh Sahib	854	831	858	861	961	857	838	754	835	208
Kapurthala	888	764	897	910	857	921	848	728	866	130
Ludhiana	824	569	875	870	673	890	783	554	860	119
Jalandhar	887	793	892	912	886	914	860	777	870	92
Faridkot	884	1488	862	891	1547	881	867	1482	877	85
Nawanshahr	914	867	916	914	856	918	911	882	906	[illegible]

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.

There has been a general decline in the sex ratio of the state and that of the in-migrants. The in-migrant's sex ratio has declined from 1432 in 1991 to 1112 in 2001. The state registered a decline of 320 points. Four districts recorded a sex ratio below the state average whereas five districts recorded sex ratio above the state average. Except for Kapurthala, Faridkot and Firozpur districts of 1991 there has been a decline in the sex ratio of in-migrants varying between 122 to 473 females per thousand males. In case of Kapurthala, Faridkot and Firozpur districts the increase in sex ratio was 12 and 6 respectively. These districts registered a marginal improvement in their sex ratios. The maximum decline of 473 points was observed in Gurdaspur district. This decrease was more in its urban population (381) than in the rural population (299). Another district which experienced a substantial decrease of 431 points was Amritsar in which the decline was more in rural areas (551) than urban areas (399) (Table 5).

Table 5
Punjab: Change in Sex Ratio of In-migrants, 1991-2001

	Total Sex Ratio			Rural Sex Ratio			Urban Sex Ratio		
	1991	2001	Change	1991	2001	Change	1991	2001	Change
PUNJAB	**1432**	**1112**	**-320**	**2306**	**1828**	**-478**	**1014**	**830**	**-183**
Amritsar	1339	908	-431	1936	1385	-551	1214	815	-399
Bathinda	2311	2189	-122	3950	3506	-444	1247	1355	109
Faridkot + Firozpur	2056	2062	6	3008	2740	-267	1397	1517	120
Gurdaspur	2467	1993	-473	2780	2480	-299	1895	1515	-381
Jalandhar + Hoshiarpur	1196	945	-251	1403	1153	-249	1046	812	-234
Kapurthala	752	764	12	808	857	49	713	728	15
Ludhiana + Patiala	1167	823	-344	2466	1614	-852	843	645	-198
Rupnagar	1274	1119	-155	1818	1498	-321	954	929	-25
Sangrur	1898	1569	-329	3089	2257	-832	1116	1141	25

Source: Computed from:-

(i) Census of India (1991): Table D 2, Migration Tables, Punjab, data available on CD.
(ii) Census of India (2001): Table D 2, Migration Tables, Punjab, data available on CD.

Fig.1

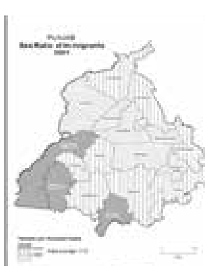

Fig.2

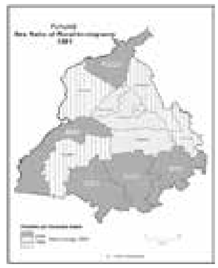

Fig. 3

Fig. 4

Fig. 5

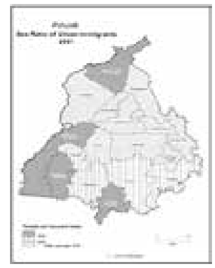

Fig. 6

The spatial pattern of change in sex ratio shows two distinct regions: (i) areas which registered an increase in their sex ratio; and (ii) areas which registered a decrease in their sex ratio. The areas of increase consisted of Kapurthala, Firozpur and Faridkot districts. All other districts of Punjab registered a decrease. The region of decrease can be further sub-divided into three areas: (a) Bathinda and Rupnagar districts which witnessed a decline of 122 and 155 points respectively; (b) Sangrur, Jalandhar and Hoshiarpur districts which registered a decline of 340 to 170 points; (c) Gurdaspur, Amritsar, Ludhiana and Patiala districts which registered maximum decline (Fig 7).

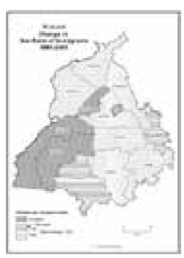

Fig. 7

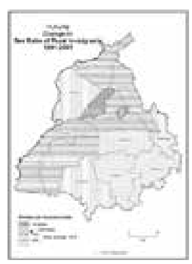

Fig. 8

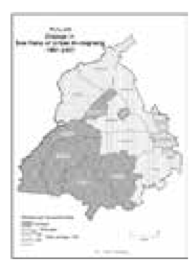

Fig. 9

The rural areas of the state experienced maximum decline in the sex ratio of in-migrant population. It declined by 478 points from 2306 in 1991 to 1828 in 2001 (Table 6). Only Kapurthala district registered an increase in its rural in-migrant sex ratio. All the other districts of the state registered a decline varying from 249 to 852 points. The spatial pattern of change in rural sex ratio shows four regions: Kapurthala district where sex ratio increased from 808 to 857 females per thousand males. The other three regions depicted a decrease in sex ratio as compared with 1991 values. The maximum change of 600 and more than 600 points was observed in three districts of Malwa region viz. Sangrur, Patiala and Ludhiana (Fig 8).

Quite contrary to the rural scenario the urban areas of the state witnessed large changes in 2001. Apart from Kapurthala four districts in the Malwa region witnessed an increase in the sex ratio of in-migrant population. All other districts witnessed a decline. The decline ranged from 25

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points in Rupnagar to 399 points in Amritsar. The two districts of Majha region witnessed drastic change in the sex ratio of its in-migrant population. It can be partly attributed to male selective out-migration from this region due to distress agricultural conditions and large scale in-migration of male population to the upcoming million city of the region viz., Amritsar. The spatial pattern of change for urban areas reveals four distinct regions. The area which lost only 25 points in 2001 was Rupnagar district. This was the only district which witnessed a change of points in double figures, whereas all other districts viz. Hoshiarpur, Jalandhar, Ludhiana and Patiala registered the change in three figures.

The sex ratio in rural areas has declined tremendously as compared to the urban areas. The recent improvement in urban sex ratio is mainly connected with: (a) growing incidence of family migration as well as of male followed by female migration as against excessively male-selective migration in the past and (b) 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 of 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 of the in-migrants in 1991 is much higher than that of the general population of Punjab. Only in two districts the sex ratio of 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 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 large growing cities put some restrictions on family migration. The population size of cities, their function, 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.

The districts which share its boundary with some neighbouring state have more 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.

Apart from the socio-economic determinants of rural-urban differential in sex ratio of the in-migrants as well as remaining population, the cultural factors have played an equally important role.

The above observations with regard to rural-urban sex ratios of 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.

In 2001 the sex ratio of the in-migrants declined considerably in the urban areas due to large scale male in-migration to the urban areas of the state. The rural-urban differences in sex ratios were more in 2001. A comparison of data for 1991 and 2001 shows large numbers of females enumerated in the rural areas although their proportion had declined.

There has been a general decline in the sex ratio of the state as well as that of the in-migrants during the decade 1991-2001. The sex ratio in rural areas has declined more as compared to the urban areas.

The recent improvement in urban sex ratio is mainly connected with: (a) growing incidence of family migration as well as of male followed by female migration as against excessively male-selective migration in the past and (b) more male migrants arrived in the state than females.

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