SARJANA
Volume 27, No. 2, December 2012, pp. 10–22

SEX RATIO OF INDIA'S POPULATION: A STUDY OF REGIONAL PATTERNS

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Abstract

The sex ratio of population in a country is an important indicator that reflects the socio-economic pulse of the country. The distribution of female to males in a society has therefore attracted considerable attention from scholars. A balanced sex ratio, whereby the number of males and females are almost equal would be the ideal situation. Based on 2001 census data, this article attempts to understand regional patterns of sex ratio in India. Owing to quite diverse cultural contours of the country, there are notable regional differences in the socio-cultural ethos. No wonder quite different shades of patriarchy are found across the country resulting in large variations in female status which, in turn, also influence mortality rate of females. This study shows that regional variations in sex ratio in the country are mainly connected with two factors, firstly, difference in mortality of males and females, and, secondly, notable incidence of male-selectivity in migration in the country.

Keywords: Sex ratio, population, India, migration

Introduction

Sex ratio (females per 1000 males) of population plays a significant role in determining the socio-economic pulse of a society. As expected, a balanced sex ratio, that is, equal number of males and females is the ideal situation. Any departure from it towards excess or deficit of males/females invariably carries its own adverse consequences for the area/settlement. Besides, its impact on various demographic processes, sex ratio also makes its own effect on certain types of crime and violence. Though sex ratio is 'the summary of a complex mass of interacting and contradictory variables' (Harriss and Watson 1987, p. 114), the following three factors are of direct importance: (i) sex ratio at birth; (ii) male-female differential in mortality; and (iii) male- or female-selectivity in migration. In the early stages of development of a society, male-female differentials in mortality play a major role in chiselling out regional patterns of sex ratio in a country. However, with increasing level of socio-economic development, migration becomes increasingly more important in this regard. Though sex ratio at birth is important in its own terms, yet it is not so significant in shaping out regional patterns of sex ratio at both local and regional scales.

India's population is marked by high deficit of females. As per the 2001 population census there were 35.7 million males in excess of females in the country. As in many other Asian countries, this deficit of females or low sex ratio is attributable to various socio-cultural factors and diverse historical experiences. As per the 2001 census there were only 933 females per 1000 males in the country. There was not much difference between sex ratios of scheduled castes (936) and non-scheduled castes (928). However, sex ratio of tribal people in the country was considerably higher (978) as compared to that of general population (933). This differential underlines the fact

that status of women is notably higher among the tribal people of the country as compared to that among the rest of population.

Changes in sex ratio, 1901-2001

Sex ratio India's total population suffered decline for nine decades from 1901 to 1991 save during 1941-1951 (Table 1) when it experienced just nominal increase. Since 1991, however, it has registered notable increase from 927 to 940. The same could be said about sex ratio of rural population save that its sex ratio stayed unchanged from 1941 to 1951. The rise in sex ratio since 1991 would have been still faster but for the emergence and rapid spread of female foeticide in the country since mid-1970s. The highest sex ratio (972) of total population was recorded in 1901 while the lowest (927) in 1991 (Table 1). The same years had experienced the highest and lowest figures of rural sex ratio. The consistent decline of sex ratio for 90 years basically springs from very low status of women in most areas of the country. Even in the first decade of the 21st century, females are discriminated against among most of the population in terms of quality of food as well as medical care.

Though declining rapidly with the passage of time, the same discrimination could be seen regarding literacy, education and employment. Besides, very low age at marriage of females among a large section of population along with widespread prevalence of large family size among poor strata also work to raise female mortality in the country. Frequent pregnancies, unskillful midwifery, inadequate pre-natal and post-natal care, further added to female mortality rate. Besides, 'the recurrence of epidemics, like plague, Malaria, and influenza in the first quarter' of the twentieth century, which made 'selective lethal influence on females' had also contributed notably to the sex ratio decline during that period as also in the earlier decades. (Gosal 1961, p. 124). It is well-documented that female mortality in India continues to be higher than that of males from 'early infancy well into their reproductive period' (Visaria 2008, p. 34).

Table 1: Decadal Variation in Sex Ratio of India, 1901 – 2011

	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
Total	972	964	955	950	945	946	941	930	934	927	933	940
Rural	979	975	970	966	965	965	963	949	952	938	946	947
Urban	910	872	846	832	831	860	845	858	880	894	900	926
R – U Differential	69	103	124	134	134	105	118	91	72	44	46	21

However, urban population's sex ratio has been on the rise since 1951 except one dip in 1961. In other words urban sex ratio had started increasing about 20 years earlier to rural sex ratio attributable mainly to three factors: (i) rapid decline in female mortality owing to better medical facilities in urban areas; (ii) acceleration in family migration as well as male followed by female migration to urban centres in the post-independence period; and (iii) rapid decline in discrimination against urban females, particularly in matters of food, and health care. Owing to different pace of change in rural and urban sex ratios, rural-urban gap in this regard has also varied notably over the study period. For instance, the highest gap (134) was registered in 1931 and 1941 when it was excessive male-selectivity in rural-urban migration in the country due partly to impact of the global economic recession of the 1930s and partly to huge mobilization effort in face of the challenge of Second World War that had erupted in 1939.

Sex ratio by age groups

India's sex ratio by age groups reveals an interesting pattern (Table 2). Up to the age of 65, rural sex ratio is higher than its urban counterpart. In the youngest three age groups, particularly in the 0-4 age group, lower urban sex ratio is the result of increasing incidence of female foeticide happening in India since mid-1970s which is certainly more pronounced in urban areas. However, between 20-59 years of age lower urban sex ratio stems from notable component of male-selectivity in rural-urban migration. It is a common pattern all over the world that females live longer than

males beyond the age of 60 or 65 years, and India is no exception in this regard. Table 2 shows that beyond 60 years of age female proportion goes up in the country. Beyond the age of 75 female are in excess in both rural and urban population, and the urban sex ratio has a distinct edge over the rural in this regard. A close look at Table 2 shows a very high sex ratio in the age group of 65-69 years in both rural and urban areas while it is relatively quite low in the very next, 70-75 years, age group. It seems to have happened due to the fact that respondents, particularly females, often tend to round up their ages towards the lower side of their actual age.

This is particularly the case at ages 20, 30, 40, 50, 60, and 70. However at the age of 80 and above, people at large often become indifferent to their age or even prefer to report themselves of higher age group as it is generally perceived to add to their feeling of importance in terms of health and experience etc.

Sex ratio by religious communities

There are significant differences in sex ratio of religious communities in the country (Table 3). As In 2001, the Christians registered the highest sex ratio (1009) followed by Buddhists (953), Jains (940), Muslims (936), Hindus (931), and Sikhs (893). However, these differentials in sex ratio do not spring from religion per se (Visaria 1967, p.343), but from overall social/regional ethos, notwithstanding the fact that some studies also try to relate these to religion (Ahmad: 117-118). For instance, the Christians are mostly concentrated in Kerala and the tribal areas in northeastern and central India which are well known for high status of females. On the other hand, in order to comprehend very low sex ratio amongst Sikhs (893), one needs to understand the social ethos of whole of northwest India which gives very high preference to males that is related a combination of socio-cultural and historical reasons.

With a national average of 931 in 2001, sex ratio of Hindus showed huge variation from merely 251 in Lakshadweep to 1058 in Kerala (Table 3). On the other hand very high proportion of females in Kerala follows the general pattern in that state. Besides, Kerala, there were eleven states and one Union Territory (UT) where sex ratio of this community was more than their national average of 931.

Table 2: India's Sex Ratio by Different Age Groups, 2001

Age Group	Sex Ratio Category		Total
	Rural	Urban	
0 – 4	941	911	934
5 – 9	927	909	923
10 – 14	901	906	902
15 – 19	856	862	858
20 – 24	972	867	938
25 – 29	1033	953	1007
30 – 34	1018	923	988
35 – 39	968	937	958
40 – 44	889	816	865
45 – 49	936	843	906
50 – 54	866	790	843
55 – 59	1086	916	1036
60 – 64	1035	996	1025
65 – 69	1096	1078	1091
70 – 74	937	1010	954
75 – 79	1002	1022	1008
80 and Above	1017	1161	1051
Sex Ratio by Broad Age Groups: Young (0 – 14)	922	909	919
Adult (15 – 59) 952	883	930	
Aged (60 and Above)	1026	1038	1029

Source: Census of India, Socio-Cultural Tables, 2001

The high sex ratio states were found in south India, those with high share of tribal people, and those located in the Himalayan region known for considerable male-selective out-migration. Interestingly, the Hindi speaking belt of the country along with Maharashtra and Punjab recorded less than the national average sex ratio of this community. On the other very low sex ratio of Hindus in the UTs of Chandigarh, Delhi, Daman and Diu, Dadra and Nagar Haveli is related to heavy male-excessive in-migration of this community, particularly from the densely populated Hindi speaking part of the country. Their very low sex ratio in Mizoram (341) and Arunachal Pradesh (749) was at least partly attributable to stationing of security forces, which comprise a major share of this community, there as these thinly populated states lie along the international borders.

Muslims recorded slightly higher sex ratio (936) than the national average for the total population (933) as well as that for the Hindus (931). Like that among the Hindus, sex ratio of Muslims also varied widely ranging from only 271 in Mizoram to 1097 in Pondicherry (Table 3). In two states (Kerala and Tamil Nadu) and two UTs (Pondicherry and Lakshadweep) females were in excess of males among this community. Other states with sex ratio of more than 950 included Andhra Pradesh, Karnataka, Manipur, Orissa, Chhattisgarh, Madhya Pradesh, and Assam. But for the deployment of security personnel in quite large numbers, Jammu and Kashmir could also have been in high sex ratio bracket. Even a cursory look at Table 3 reveals that higher Muslim sex ratio was recorded in more or less the same states marked by higher sex ratio among Hindus. It underlines the fact that religion as such does not play important role in determining this phenomenon.

The Sikhs had the lowest sex ratio (893) among all the religious communities (Table 3). It is attributable to the fact that their large population is concentrated in Punjab and its adjoining areas which fall in northwest India known for rigid patriarchy and high son preference. Since female proportion among Sikhs was close to their national average sex ratio (893) in the all the states/UTs with their relatively high concentration, it points out that Sikhs are marked by predominance of family migration. Very low sex ratio among them in many states/UTs could be appreciated if one keeps in mind that their number is very small in such areas, and even a small male-selective migration, whether for jobs or education, is enough to bring down this ratio.

With a national average of 1009, the Christians recorded the highest sex ratio among all the religious communities in the country in 2001 (Table 3). Thus, this community's sex ratio had an excess of 66 females per thousand males as compared to that of the total population of the country. All the religious communities lagged far behind the Christians in terms of sex ratio. It is the only religious group that recorded excess of females in eleven states and two UTs.

These states included Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Pondicherry, Goa, as well as many of the states having concentration of tribal people like Orissa, Chhattisgarh, Jharkhand, West Bengal, Meghalaya and Arunachal Pradesh. Even in the Delhi, their sex ratio was as high as 1076. In only eight states and three UTs, Christian sex ratio was lower than that of total population of the country. Their lowest sex ratio was registered in Lakshadweep (206) followed by Jammu and Kashmir (594), and Himachal Pradesh (822). Incidentally, each of these three areas had very small population of this community and, hence, even a small incidence of Christian male in-migration was enough to result in heavy decline of its sex ratio.

Constituting only 0.77% of total population of the country, the Buddhists had recorded the second highest sex ratio (953), after the Christians (1009), among the various religious communities of the country in 2001. Their highest sex ratio was registeredin Chhattisgarh (1012) followed by West Bengal (981), Arunachal Pradesh (970), Maharashtra (961), and Andhra Pradesh (960). All other states and UTs had recorded lower sex ratio of this community than its national average of 953. The lowest ratio in this regard was found in Andaman and Nicobar Islands (358) followed by Daman and Diu (370), Dadra and Nagar Haveli (638), Uttaranchal (778), Pondicherry (780), and Haryana (783). In other words, sex ratio of Buddhists was close to their national average in all the states they were having notable concentration. On the other hand, this ratio was generally much lower in all the states/UTs with only thin scatter of this community indicating impact of even a trickle male-excessive migration to such places.

Accounting for only 0.41% of the total population of the country, the Jains had a sex ratio of 940 in 2001 (Table 3). In five states and two UTs, this figure was higher than the national average for total population of the country (933). However, with the exception of Daman and Diu which had a sex ratio of 1000, all the states and UTs recorded deficit of females among this community in 2001. The lowest sex ratio of Jains was the experience of Arunachal Pradesh (662) followed by Sikkim (664), and Mizoram (738).

Table 3: Sex Ratio of India's Population by Religion, 2001

	Total	Hindus	Muslims	Sikhs	Christians	Budhists	Jains	Others
INDIA TOTAL	933	931	936	893	1009	953	940	992
JAMMU & KASHMIR	892	824	927	809	594	941	856	902
HIMACHAL PRADESH	968	973	806	898	822	942	877	1005
PUNJAB	876	846	793	897	893	871	914	846
CHANDIGARH	777	756	650	910	932	858	940	890
UTTARAKHAND	962	978	875	898	960	778	930	762
HARYANA	861	858	870	893	918	783	911	790
DELHI	821	817	782	925	1076	829	935	871
RAJASTHAN	921	920	929	892	986	802	960	815
UTTAR PRADESH	898	894	918	877	961	895	911	871
BIHAR	919	915	943	879	974	841	904	935
SIKKIM	875	852	439	108	960	944	664	983
ARUNACHAL PRADESH	893	749	625	264	1003	970	662	1001
NAGALAND	900	582	614	488	941	782	852	939
MANIPUR	978	974	973	515	977	879	842	1009
MIZORAM	935	341	271	299	986	929	738	985
TRIPURA	948	949	945	101	941	956	916	759
MEGHALAYA	972	827	891	718	1004	871	906	996
ASSAM	935	932	938	667	962	939	866	950
WEST BENGAL	934	932	933	807	1002	981	929	985
JHARKHAND	941	928	939	838	1018	885	928	990
ORISSA	972	971	948	851	1026	904	933	1009
CHHATTISGARH	989	990	943	899	1021	1012	922	1014
MADHYA PRADESH	919	918	929	882	996	949	925	1029
GUJARAT	920	918	937	824	988	889	969	986
DAMAN & DIU	710	698	799	576	944	370	1000	807
DADRA & NAGAR HAVELI	812	814	692	281	902	638	895	875
MAHARASHTRA	922	923	889	829	993	961	942	988
ANDHRA PRADESH	978	979	961	796	1037	960	936	946
KARNATAKA	965	966	957	739	1030	907	926	966
GOA	961	918	867	644	1107	818	885	868
LAKSHAD WEEP	948	251	1002	0	206			
KERALA	1058	1058	1082	714	1031	875	996	957
TAMIL NADU	987	983	1020	731	1031	868	933	882
PONDICHERRY	1001	987	1097	543	1101	780	900	904
ANDAMAN & NICOBAR ISLANDS	846	828	860	818	904	358	917	859

Sex ratio by states and union territories (UTs)

Out of all the 35 states and UTs, Kerala is the only state which has substantial excess of females in both rural and urban areas (Table 4). In this respect, it stands quite apart from the rest of the country. Similarly, the UT of Pondicherry recorded high sex ratio in its total population (1001) and urban population (1007). Among the states which registered sex ratio between 950 and 1000, Chhattisgarh occupies the top rank having 989 females per 1000 males in its total population. It has a large share of tribal people known for minimal gender disparities. But for huge inflow of male-excessive migration of non-tribal people in the past few decades to this mineral rich and relatively sparsely populated state, its sex ratio would have been quite high. As the migration was more to the newly emerged urban centres, its urban sex ratio is accordingly much lower (932) than the rural (1004). The states of Orissa and

Meghalaya having relatively high proportion of tribal population are also included in this category.Though its majority population is non-tribal, Manipur also falls in this category of relatively high sex ratio.

Other main area of relatively high sex ratio (950 to 1000) comprises the southern states of Tamil Nadu (987), Andhra Pradesh (978), Karnataka (965) and Goa (961) where women enjoy better status as compared to their north Indian counterparts. Besides, with respective sex ratios of 968 and 962, the mountainous states of Himachal Pradesh and Uttarkhand also fall in this category (Table 4). Relatively high sex ratio of the two states is attributable partly to male-excessive out-migration for employment to other states and partly to quite high share of tribal people in their areas adjoining Tibet.

Table 4: Sex Ratio by India's States and Union Territories, 2001

S.No.	State / Union Territory	Sex Ratio Category No.			
		Rural	Urban	Total	R – U Differential
1	Jammu & Kashmir	917	819	892	98
2	Himachal Pradesh	989	795	968	194
3	Punjab	890	849	876	41
4	Uttarakhand	1007	845	962	162
5	Haryana	866	847	861	19
6	Rajasthan	930	890	921	40
7	Uttar Pradesh	904	876	898	28
8	Bihar	926	868	919	58
9	Sikkim	880	830	875	50
10	Arunachal Pradesh	914	819	893	95
11	Nagaland	916	829	900	87
12	Manipur	967	1009	978	-42
13	Mizoram	923	948	935	-25
14	Tripura	946	959	948	-13
15	Meghalaya	969	982	972	-13
16	Assam	944	872	935	72
17	West Bengal	950	893	934	57
18	Jharkhand	962	870	941	92
19	Orissa	987	895	972	92
20	Chhattisgarh	1004	932	989	72
21	Madhya Pradesh	927	898	919	29
22	Gujarat	945	880	920	65
23	Maharashtra	960	873	922	87
24	Andhra Pradesh	983	965	978	18
25	Karnataka	977	942	965	35
26	Goa	988	934	961	54
27	Kerala	1059	1058	1058	1
28	Tamil Nadu	992	982	987	10
29	Delhi*	810	822	821	-12
30	Chandigarh*	621	796	777	-175
31	Daman & Diu*	586	984	710	-398
32	Dadra & Nagar Haveli*	852	691	812	161
33	Lakshadweep*	959	935	948	24
34	Pondicherry*	990	1007	1001	-17
35	Andaman & Nicobar Isl.*	861	815	846	46
	INDIA TOTAL	946	900	933	46

Source: Census of India, 2001; Primary Census Abstract, Table A - 5 Note: * Means Union Territory

There were ten states and UTs with less than 900 females per 1000 males. The lowest sex ratio (710) was recorded the UT of Daman and Diu which had population of about 158,000 only. Next in line was the UT of Dadra & Nagar Haveli (812) which also had a small population in 2001. Migration of even a few thousand males for employment to these small tracts was capable of bringing down their sex ratios to very low levels. Similarly, very low sex ratio (777) of Chandigarh UT was attributable to heavy in-migration particularly from Uttar Pradesh and Bihar for labour and other informal work in the city. The same explanation applies to the low sex ratio (821) of Delhi. Low sex ratios of Haryana (861) and Punjab (876) are mainly the result of two factors: (i) very strong son preference, and (ii) heavy male-selective in-migration from Uttar Pradesh and Bihar in recent decades particularly after the onset of the famous Green Revolution in the two states around 1970s.

Regional pattern of sex ratio

The following account is largely based on four maps and Table 5 prepared by using district-wise data from the 2001 census. As in the past, the country was marked by strong regional as well as rural-urban variations in sex ratio. For instance out of 593 districts in the country in 2001, sex ratio of total population was 1000 and above in 73 (12.31%) districts while it was lower than 900 in 164 (27.65%) districts, and in 48 (8.09%) of them it was even below 850 (Table 5). In about 60% of districts, this ratio ranged from 900 to 1000. In case of rural areas, sex ratio was 1000 and above in 90 (15.18%) districts of the country. In 177 (29.85%) of the districts rural sex ratio ranged from 950 to 1000 females per thousand males. Relatively large number of districts with high rural sex ratio is attributable to much greater incidence of male-excessive rural-urban migration in large parts of the country. No wonder in only 6.07% of districts, as against 8.09% in case of total population, rural sex ratio was less than 850 in 2001. Owing to the same reason, 16.69% of the districts had registered less than 850 females per 1000 males in urban areas, while in only 42 (7.08%) districts this figure was above1000 (Table 5).

Table 5: India's Districts by Sex Ratio Categories, 2001

Sex Ratio Type	Sex Ratio Category	No. of Districts	%
RURAL	485 – 850	36	6.07
	851 – 900	102	17.20
	901 – 950	179	30.18
	951 – 1000	177	29.85
	1000 – 1189	90	15.18
	Entirely Urban	9	1.52
URBAN	327 – 850	99	16.69
	851 – 900	192	32.38
	901 – 950	170	28.67
	951 – 1000	80	13.49
	1001 – 1173	42	7.08
	Entirely Rural	10	1.69
TOTAL	591 – 850	48	8.09
	851 – 900	116	19.56
	901 – 950	195	32.88
	951 – 1000	161	27.15
	1001 – 1147	73	12.31
R –U DIFFERENTIAL	-251 to -1147	10	1.68
	-1 to -250	131	22.09
	No difference	9	1.52
	1 to 250	422	71.16
	251 to 987	21	3.55

As a result of male-excessive nature of rural-urban migration in the country, rural sex ratio is notably higher than its urban sex ratio. Accordingly, about three-fourths of the districts had recorded higher sex ratios in rural areas than in urban. In 422 districts, rural areas had an excess of females ranging from one to 250 per thousand males. In 21 districts, this excess was more than 250, and in 12 of them it was even more than 500 per thousand males. There were only eight districts where rural and urban population sex ratios were equal. On the other hand, in 141 (23.77%) districts, urban areas had recorded higher sex ratios than their rural counterparts. In 9 of the districts this difference was even more than 500 females per thousand males.

Thus, India is characterised by large regional variations in sex ratio. Two broad areas can be easily identified in this regard, i.e., one with notable excess of females, and other with a strong deficit of females. Sopher (1980, p. 296) rightly points out that 'the line of the Narmada River and the extension of that line northeastward to follow the northern edge of the plateau in Bihar makes a hinge line that effectively separates' the most masculine one-third of the districts to its north from the least masculine third to its south. However, while Figure 1 based on data by districts confirms the above observation, it also shows that there are also a few exceptions in this regard, i.e., there are half a dozen sizeable areas of high sex ratio to the north of Peninsular India. Even a cursory glance on Map 1 reveals that the following types of areas can be easily identified: (i) Areas of high sex ratio, i.e., 950+ females per thousand females; (ii) Areas of low sex ratio (below 900); and (iii) Areas of moderate sex ratio (900-950).

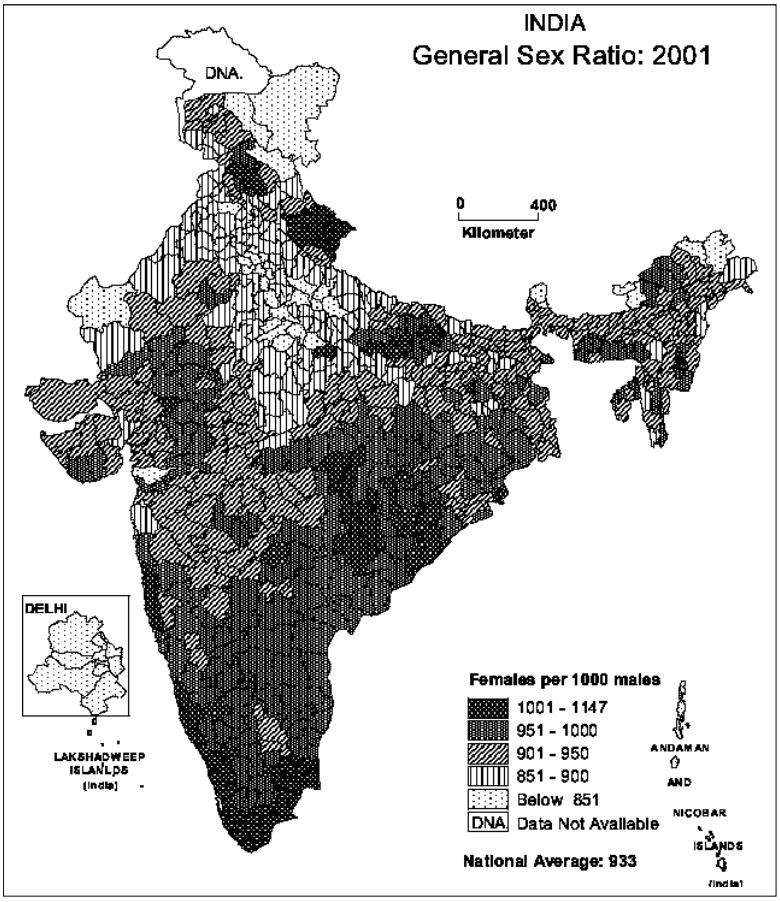

Figure 1

Areas of Low Sex Ratio (below 900)

Much of Eastern Uttar Pradesh, Haryana, Punjab, northwestern Rajasthan, and northern half of Madhya Pradesh along with Delhi and Chandigarh constitute the largest area of low sex ratio (below 900 females per 1000 males) in the country. Populated by many ethnic groups, the area is characterized by rigid patriarchic social organization which

has resulted in high son preference in the area. Since there is the compulsion of dowry, along with hypergamy and exogamy, daughters are perceived as burden on the family both structurally and economically (Kaur 2008, p. 112). Consequently, the whole tract seems to suffer from not only high son preference but also from daughter dislike. Whereas, all this had led to large incidence of female infanticide in the past, it has also been resulting in female foeticide which has been spreading fast in recent decades.

Areas of Relatively High Sex Ratio (above 950)

High sex ratios were mainly recorded in two types of areas: (i) the southern states namely Kerala, Tamil Nadu, Karnataka and Andhra Pradesh, and Goa along with the UT of Pondicherry; (ii) areas with high proportion of tribal people, i.e., Chhattisgarh, Parts of Orissa, south-central part of Rajasthan and western tip of Madhya Pradesh, large part of Jharkhand along with the adjoining belt of West Bengal (Figure 1). Besides large part of Northeast India, having notable concentration of tribal people, also fall in this category of areas. Relatively high sex ratio in all these areas stems from their social ethos that provides for fairly high social status of females. Accordingly, the issues of exogamy, hypergamy, and dowry do not carry much significance there, and, therefore, daughters are not considered as unwelcome burden on the family as that in north India. Instead, most of these areas are characterized by endogamy, isogamy, bride price, 'recognition of women's rights to land, and short distances of marriage migration' (Dalmia and Lawrence 2005, p.74) which are indicative of higher female status.

In addition, there are also three other distinct areas, all in north India, that emerge with relatively high (950-1000) sex ratios: Large part of Himachal Pradesh, Uttarakhand, and sizeable tract in eastern Uttar Pradesh and the adjoining parts of Bihar. Characterized by acute poverty, all these regions have long been marked by male-selective outmigration to other parts of India as well as for military service which together leads to relatively high sex ratios in these areas. Besides, a notable sprinkle of tribal groups in parts of Himachal Pradesh and Uttarakhand also make their own contribution in this regard.

Areas of Moderate Sex Ratio(851-950)

In 52.44% of the districts in the country registered sex ratio ranging from 850 and 949. The corresponding figures for rural and urban areas were 47.38% and 61.05% respectively. Generally speaking areas with moderate sex ratio are found between those with high and low sex ratios (Figure 1).

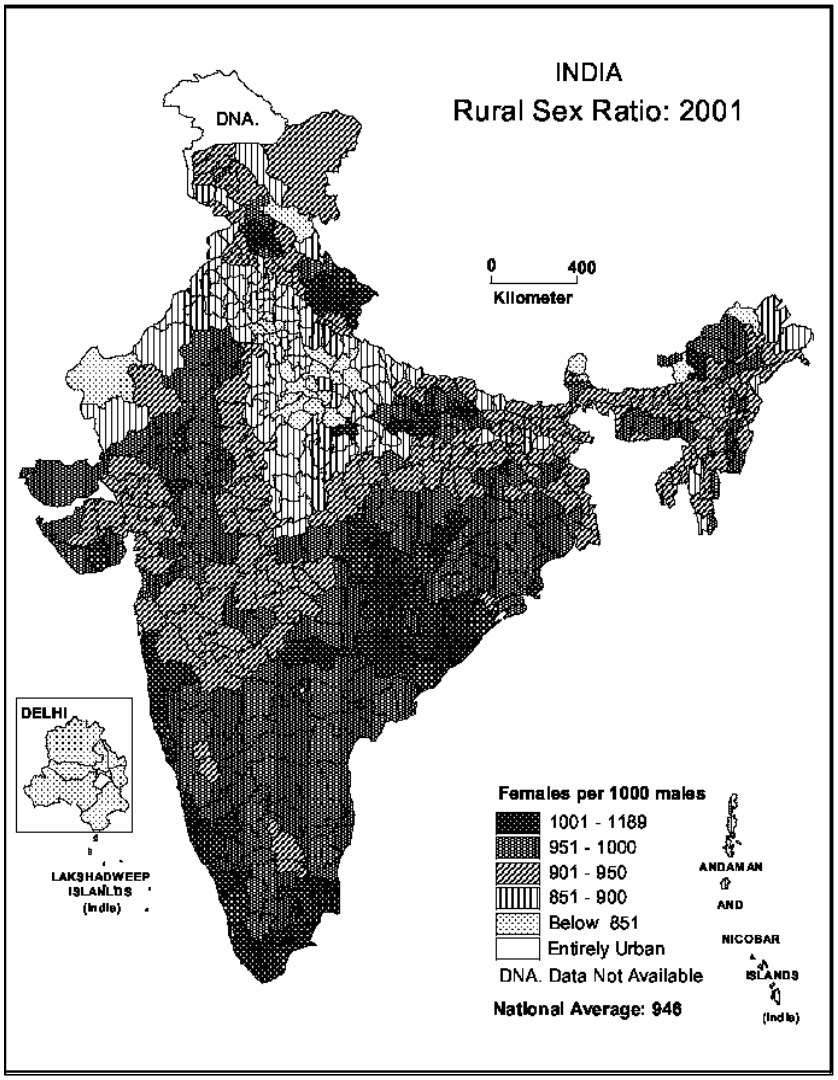

Figure 2

Sex Ratio of Rural and Urban Population

The overall pattern of sex ratio of total (general) population and rural population was almost the same in 2001 (Figure 1 and 2). However, high rural sex ratio covered much larger areas owing to notable incidence of male-selective rural-urban migration in the country. On the other hand, owing to male-selectivity in out-migration from rural areas, high urban sex ratio covered much smaller areas (figure 3). However, Kerala, large parts of Tamil Nadu, Karnataka, and Andhra Pradesh stand distinctly apart in recording high sex ratio in both rural and urban areas.

Though rural sex ratio is higher than urban in most parts of the country, yet there are large tracts where it is also higher in urban than rural areas (Figure 4 and Table 5).

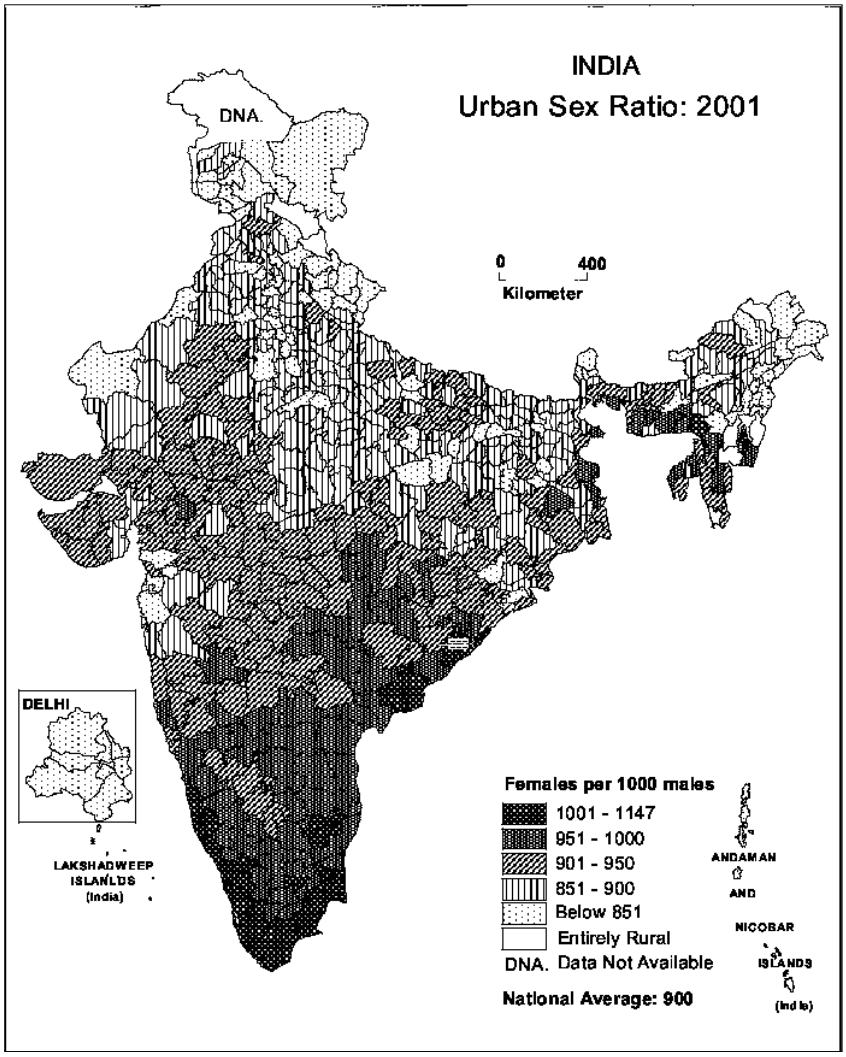

Figure 3

The prevalence of higher sex ratios in urban population in about one-fourth (23.78%) districts of the country in the Indian context is very significant. Figure 4 shows four notable areas in this regard: (i) Large parts of Andhra Pradesh; (ii) Northern half of Tamil Nadu; and (iii) Districts bordering Bangladesh; and (iv) East Uttar Pradesh and Northern half of Madhya Pradesh. The first three areas' high urban sex ratio is mainly attributable to notable incidence male-selective rural-urban migration. But higher urban than rural sex ratio in eastern Uttar Pradesh and northern half of Madhya Pradesh, an area of rigid patriarchy and huge low sex ratio of general/total population, requires a separate study for its proper understanding.

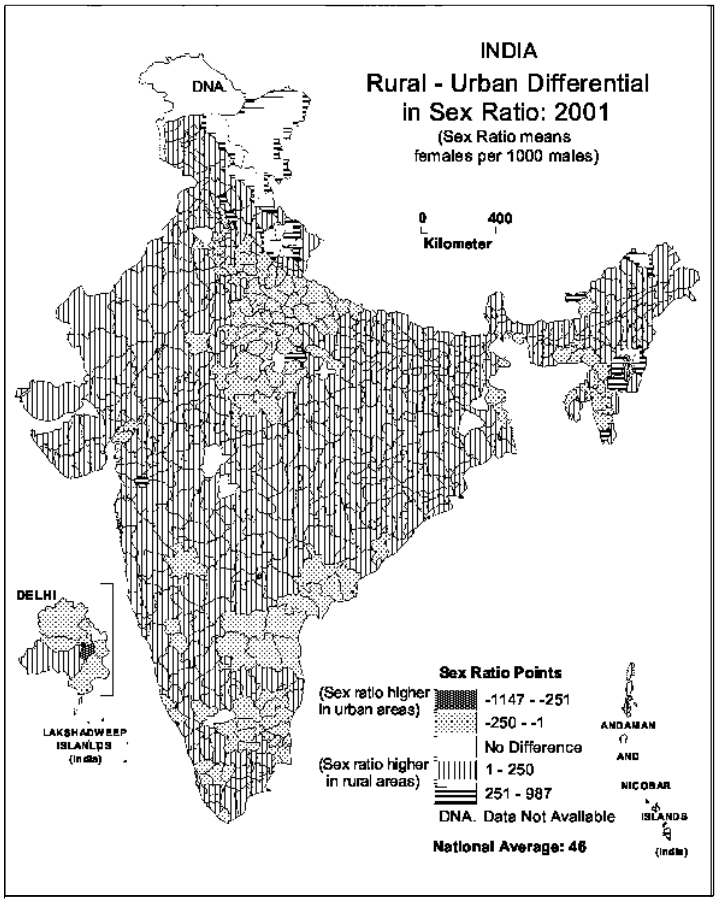

Figure 4

Conclusion

In tune with its large socio-economic and cultural diversity, India is characterised by strong regional inequalities in sex ratio. Though differences in sex ratio at birth cannot be ruled out completely, yet these could not be so large as to lead to high variations in sex ratio as obtaining at present. In fact the following two factors have been the main determinants of sex ratio patterns in the country: (i) differentials in female mortality attributable to discriminations in terms quality of food and medical care; social ethos plays an important role in shaping attitude regarding status of females in large parts of the country; (ii) the degree of male-selectivity in migration. Though the importance of the two factors is declining slowly, it is yet to cover a long distance. Male-selectivity in migration affects both ends of migration stream. Whereas it lowers sex ratio at the destination place of migrants, it also raises it at the area of origin of migration. Preponderance of low sex ratios in urban centres vis-à-vis rural areas speaks for continuing importance of male-excessive migration.

Religion per se seems to play an indifferent role in determining sex ratio patterns in the country. It is mainly the social ethos and other cultural differences that play a major part in this regard. Sex ratio differences between north and south India, and those between tribal people and non-tribal population essentially owe to cultural differences. However, very high sex ratio (1009) among the Christians in most parts of the country certainly calls for a separate in-depth study before something conclusive can be said regarding precise connection, if any, between religion and sex ratio.

Relatively high sex ratio in the country has been a common feature in south India, and the areas with higher concentration of tribal people. On the other hand, northwestern India has been marked by very low sex ratio since long. Whereas females in family system of south India and that of tribal people are 'seen as more valued, both economically and socially' (Malhotra et al. 1995, p. 283), they generally stand marginalized in the northwestern part

of the country. These differences between the two sets of areas not only influence rate of female mortality but also male-selectivity in rural-urban migration.

Notes

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[2] Sex ratio is generally calculated in two ways: (i) females per 1000 females; (ii) males per thousand males. This study uses the first method.

[3] Hierarchical caste system is a part and parcel of Indian society. In terms of their social and economic status, these castes are grouped as higher, middle, and low castes. The lower castes have been together mentioned as the Scheduled Castes in the Constitution of the country for the purpose of special help by the central and state governments. This historically disadvantaged section of population gets reservation quota in employment and educational institutions. Students from this category are also given stipends to pursue their studies. Though they are free from the caste system,, the tribal people are also given reservation quota both in employment and education under the umbrella category Scheduled Tribes in the Constitution.

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