



## Spatial analysis of sex ratio in Haryana: Rural and Urban Dimension

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### Abstract

Sex ratio refers to the balance between males and females in any population. It not affects the demographic process, but also determines the socio economic relationship within a community. The balance between males and females in the total population as well as in rural and urban population has considerable impact on social and economic situation, both in the present as well as in the future context. It indicates the relative proportion of the female and male components of any population. The term sex ratio is number of females per thousand of males. Haryana state has 879 female per 1,000 of males. Sex ratio in Haryana varies from 907 in Mewat to 854 in Gurgaon. In Rural and Urban the sex ratio varies from 882 to 873 female per 1000 males. Present paper has been analyzed the spatial pattern of sex ratio differential in various groups in Haryana. Average Differential in General-Rural differential in sex ratio -0.001, General-Urban differential in sex ratio 0.001, Rural-Urban differential in sex ratio 0.003.

**Keywords:** sex, balance, dimension, population, rural-urban, spatial

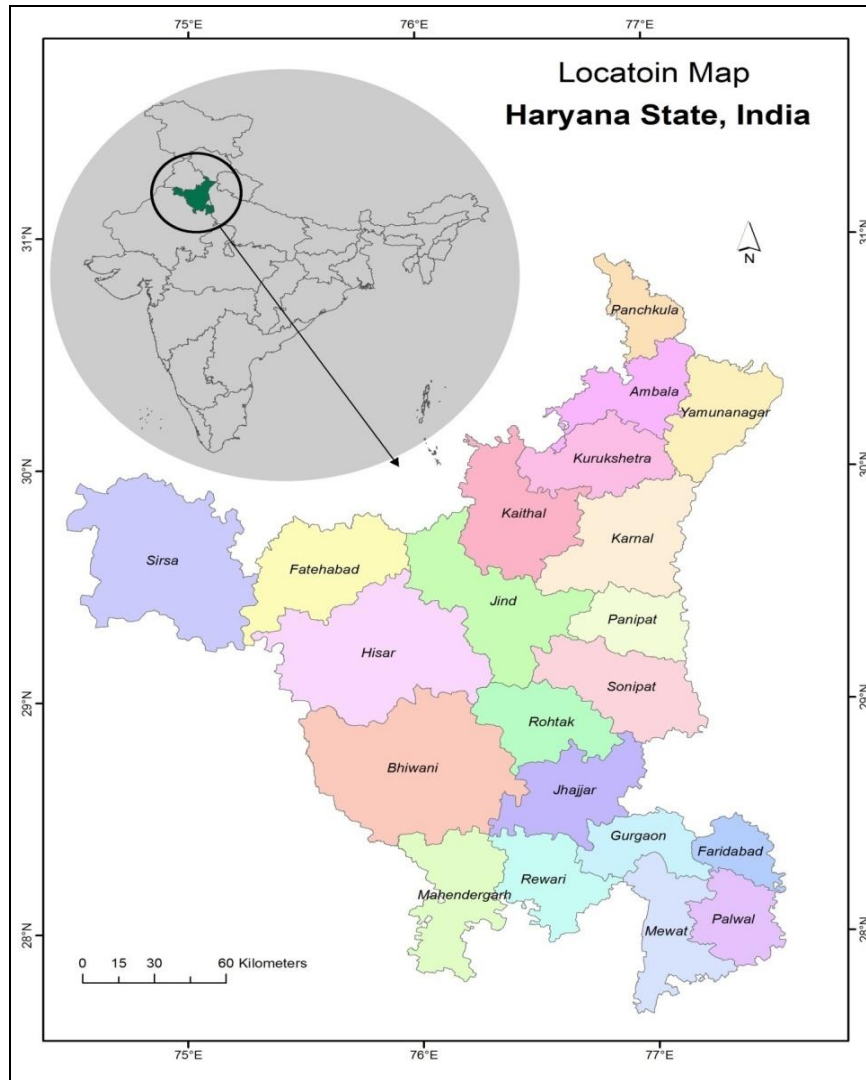
### Introduction

The precise term 'Sex' may be described as an anatomical and psychological characteristic which symbolize the biological 'maleness' and 'femaleness (Stoller, 1968) [6]. In geographical studies, the sex composition is expressed in terms of a ratio between the numerical strength of males and females in the total population. The possible balance in number of men and women is an ideal condition of the population (Singh, 2010) [5]. As sex ratio is both cause and consequence of a number of demographic attributes (fertility, mortality, marital status, life expectancy and migration). The different types of sex composition, primary (at the time of conception), secondary (at the time birth) and tertiary (at the time enumeration) are influenced at different levels by various population phenomenon (age of mother, determination of sex and abortion, female infanticide, status of women) as well as assortment of other external factors. Interestingly, even nature appears with differences male and female population size that is not any issue of worry but when these differences convert into inequality owing to relevance of socially and ethnically assembled surroundings and chronological conditions, then it turn into matter of great concern for every discipline. This drastic dissimilarity in both sexes leads to adverse demographic and social impacts (NIPCCD, 2008) [4]. As the two sexes play partly contrasting and corresponding roles in economy and society, the study of sex composition presume additional importance for population geographers (Chandna, 1996) [1]. Whereas the

matter of Haryana, Census of India has listed it as gender critical state having lowest sex ratio in the country with number of 879 female per 1000 male which shows that unfortunately the prevalence patriarchal position and strong son preference over daughters is still dominating the society (Edmeades et al. 2011 and Jatrana, 2003) [2, 3]

### Study Area

Haryana state is one of the developed states of India which lies between 27° 37' north to 30° 53' northern latitude and 74° 28' east to 77° 36' eastern longitude. Haryana state is bounded by Punjab and Himachal Pradesh from north, Rajasthan from west and south, U.P. and Delhi from east. Haryana state is one of the smallest states of India with 44212sq.km. Haryana state has total population of 2,53,53,081 persons in 2011, out of which 1, 35, 05, 130 are male and 1,18,47,951 female. The density of population recorded as 573 persons per sq. kilometre which is fifth highest in Indian states. The sex ratio recorded 877 females per thousand males, which is lowest in India. Haryana state has 76.64 percent literacy rate with differential of 85.38 percent male literacy and 66.77 percent female literacy. State has 1,69,04,324 literate person out of which 99,91,838 are males and 69,12,486 are females. Haryana state has 34.79 percent urbanization which differs from 79.44 percent in Faridabad to 11.36 percent in Mewat. There are 21 districts with an increase of two districts compare to 2001 Census.



**Fig 1:** District map of Haryana

**Objectives**

The present paper has following objectives

1. To analysis the spatial pattern of Sex Ratio in 2011 in Haryana.
2. To analysis the General, Rural and Urban differential in Sex Ratio in 2011 in Haryana.

**Data base and methodology**

Present paper is based on secondary data which obtained by census of India 2011. Data obtained from census has been analyzed and presented by applying differential index which is as follows: Differential Index:

**1. GRDI = (GSR-RSR) / TSR**

**2. GUDI = (GSR-USR)/TSR**

Where

GRDI=General-Rural differential index.

GUDI = General-Urban differential index.

GSR=General Sexratio.

GSR= General Sex ratio.

RSR=Rural Sexratio.

USR= Urban Sex ratio.

TSR= Total Sex ratio

TSR= Total Sex ratio

**3. RUDI= (RSR-USR)/TSR**

RUDI=Rural-Urban differential index.

RSR= Rural Sex ratio.

USR= Urban Sex ratio.

TSR= Total Sex ratio

After using this technique, the result is divided into four categories, which are high, moderate, low and very low.

**A. Spatial pattern of sex ratio**

Present paper has been discussed the spatial pattern of Sex ratio in Haryana Rural and Urban. Sex ratio divided into three categories of pattern viz. general Sex ratio, urban Sex ratio and rural Sex ratio.

**1. Spatial pattern of general sex ratio**

Haryana state has 879 Sex ratio which is lowest in India. General Sex ratio in Haryana varies from 907 in Mewat to 854 in Gurgaon. 12 districts have average sex ratio in compare to state average while 9 districts are below state average in Haryana.

**2. Spatial Pattern of Rural Sex Ratio**

Haryana has 882 rural sex ratio and at district's level in Mewat (907) occupied first place while Sonipat (850) occupied last position in male literacy rate.

**Table 1:** Various Dimensions of Sex Ratio in Haryana, 2011

District	Total	Rural	Urban
Ambala	885	892	876
Bhiwani	886	886	885
Faridabad	873	872	873
Fatheabad	902	902	899
Gurgaon	854	878	844
Hisar	872	877	861
Jhajjar	862	861	865
Jind	871	868	881
Kaithal	881	880	887
Karnal	887	886	890
Kurukshetra	888	899	862
Mahendergarh	895	896	890
Mewat	907	907	907
Panchkula	873	863	881
Panipat	864	860	868
Palwal	880	880	883
Rewari	898	907	873
Rohtak	867	852	887
Sirsa	897	898	896
Sonipat	856	850	869
Yamunanagar	877	882	871
Haryana	879	882	873

Sources: Provisional Census of India, 2011

**3. Spatial Pattern of Urban Sex Ratio**

Urban sex ratio in Haryana 873 ratio which is varies from highest in Mewat (907) to lowest in Gurgaon (844).

**B. Spatial Pattern of Sex Ratio Differential**

Present paper has been analyzed the spatial pattern of sex ratio differential in various groups in Haryana. The differential in various groups like General, Rural and Urban differential in sex ratio, General-Rural differential in sex ratio, General-Urban differential in sex ratio, Rural-Urban

differential in sex ratio.

**1. Spatial Pattern of General-Rural Sex Ratio Differential**

General sex ratio differential index varies in Haryana from one district to other. The value of differential index varies from (-0.028) in Gurugaon to (0.017) in Rothak district, while state average is (-0.001). The value of differential index of thirteen districts is more than state average while rests are below state average.

**Table 2:** Sex Ratio differential Index in Haryana, 2011

District	Total	Rural	Urban	General-Rural Differential	General-Urban Differential	Rural-Urban Differential
Ambala	885	892	876	-0.008	0.010	0.018
Bhiwani	886	886	885	0.000	0.001	0.001
Faridabad	873	872	873	0.001	0.000	-0.001
Fatheabad	902	902	899	0.000	0.003	0.003
Gurgaon	854	878	844	-0.028	0.012	0.040
Hisar	872	877	861	-0.006	0.013	0.018
Jhajjar	862	861	865	0.001	-0.003	-0.005
Jind	871	868	881	0.003	-0.011	-0.015
Kaithal	881	880	887	0.001	-0.007	-0.008
Karnal	887	886	890	0.001	-0.003	-0.005
Kurukshetra	888	899	862	-0.012	0.029	0.042
Mahendergarh	895	896	890	-0.001	0.006	0.007
Mewat	907	907	907	0.000	0.000	0.000
Panchkula	873	863	881	0.011	-0.009	-0.021
Panipat	864	860	868	0.005	-0.005	-0.009
Palwal	880	880	883	0.000	-0.003	-0.003
Rewari	898	907	873	-0.010	0.028	0.038
Rohtak	867	852	887	0.017	-0.023	-0.040
Sirsa	897	898	896	-0.001	0.001	0.002
Sonipat	856	850	869	0.007	-0.015	-0.022
Yamunanagar	877	882	871	-0.006	0.007	0.013
Haryana	879	882	873	-0.003	0.007	0.010
Average				-0.001	0.001	0.003

Source: Computed by Author

**2. Spatial pattern of general-urban sex ratio differential**

General-urban sex ratio differential index varies from (-0.023) in Rothak to (0.028) in Rewari. Haryana state

average in this category is (0.001). The value of differential index of twelve districts is more than state average while rests are below state average.

### 3. Spatial pattern of rural-urban sex ratio differential

Rural-Urban sex ratio Differential index of this category varies between (-0.022) in Sonipat to (0.042) in Kurukshetra. The value of differential index of nine districts is more than state average while rests are below state average.

#### Conclusion

Paper found that there are regional disparities in distribution of the sex ratio. It is noticed that general sex ratio is high in Mewat, Fatehabad and Bhiwani. The lowest sex ratio in Gurugaoon, Sonipat and Jhajjar. Rural-urban sex ratio difference is high in Kurukshetra, Gurgaon, Ambala and Hisar districts while it is very low in Sonipat and Panchkula districts. It is also found that General-urban sex ratio differential index varies from (-0.023) in Rothak to (0.028) in Rewari. The General Rural sex ratio differential index varies from (-0.028) in Gurugaoon to (0.017) in Rothak district.

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