



## Literacy rate and sex ratio: A geographical study of Hisar city

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### Abstract

This paper is an attempt analysis of spatial pattern of literacy rate sex ratio and correlation between male, female and total literacy rate and sex ratio in Hisar city of Haryana state. Ward wise data was collected from census 2011. When we analysis at ward wise data of Hisar city about literacy and sex ratio, we find that ward No. 23 which is the most highest t literacy rate (84.9%) and highest sex ratio (936). The Spearman Rank correlation method has been adopted to find out the correlation between sex ratio and literacy rate This study reveals that Spearman's Rank correlation between sex ratio and male female and total literacy rate is  $R = 0.47, 0.43$  and  $0.52$  respectively. This value shows that moderate Positive correlation between literacy and sex ratio. So lastly it's concluded that literacy is succeeding to change thinking of people.

**Keywords:** census data, literacy, sex ratio, correlation, thinking

### Introduction

Literacy plays a very important role in increase in sex ratio. Inchani and Lai (2007) <sup>[5]</sup> presented that there was a significant association of the child sex ratio and the educational levels. Siddique (1977) <sup>[7]</sup> found that literacy is one of the most important indicators of social development. Though education by itself does not generate socio – economic progress, lack of it's certainly being an impediment in the development process. Kaur and kumar (2008) <sup>[6]</sup> identified that literacy rate among scheduled caste in India was increasing, but the percentage increasing was not high during last decade. Literacy affected on various attributes of the population such as fertility, mortality, migration and also sex ratio. Sule and Barkade (2012) <sup>[10]</sup> found that there were wide disparities in the literacy rate and sex ratio of Solapur district and found the Correlation between literacy and sex ratio in moderate degree and positive angle. Desai (2012) <sup>[3]</sup> showed that there exist a high correlation between literacy rate and the GDP and it became an imperative to find some innovative measures to increase the literacy growth rate. Sandeep 2013 found that significant negative correlation between male literacy and sex ratio, female literacy rate and sex ratio and all person literacy rate and sex ratio and also identified that there is various States and UTS which provides negative correlation between sex ratio and literacy rate. These are sex ratio at time birth, differences in mortality rates of two sexes, at different ages in the migratory ethos of the two sexes. Among the various elements of population composition literacy and sex composition has a great importance in population study (Chandana, 2002 p. 270) <sup>[2]</sup>.

Singh (2012) <sup>[9]</sup> analyzed that son preference for son, fertility decline and the pressure caused by small family, access to modern sex selection are the causes of lowering sex ratio in Haryana. Manoj Kumar (2016) attempted to comprehend educational progress, age and sex patterns, occupational and economic structure at the family level in Gujjaran Mohalla a caste-based segregated mohalla inhabited by Gujjar caste and one of the oldest mohallas in Hisar city. Haryana although an economic developed state, occupies one of the lowest positions in term of sex ratio. It is contradictory that backward district has highest sex ratio 906.

### Study Area

The district headquarters town, Hisar, can possibly be identified with Esukari or Isukara of Vedic times but was founded by Firuz Shah Tughlak and he built a fort in AD 1354. He named it Hisar-e-Firuz. Settlements sprung around the fort (Primary Census Abstract Hisar District, 2001) <sup>[1]</sup>. Hisar, the west central most district of Haryana State with a total geographical area of 3983.00 sq. km is lies between the North latitudes  $28^{\circ} 56'00''$ :  $29^{\circ} 38'30''$  and East longitudes  $75^{\circ} 21'12''$ :  $76^{\circ} 18'12''$ . The district area falls in Yamuna sub-basin of Ganga basin. There is no natural drainage in the district area. However, the area is drained by network of canals and the artificial drains (field drains/channels).

Sex ratio in Hisar had improved to 849 females per 1000 males in 2011 as compare to census 2001 which was 831 females per 1000 males. It is a good sign for improvement in sex ratio in Hisar. It happened due to some social program organized by health department (Census of India, 2011) <sup>[4]</sup>.

### Database and Methodology

This paper based on secondary data collected from census of India 2011. To show the spatial pattern of literacy and sex ratio in Hisar city. The correlation between literacy and sex ratio is analyzed by using the spearman's

rank correlation method. It is a statistical measure of the asset of a monotonic relationship between paired data. The formula for computing spearman's rank correlation as follow

$$r = 1 - 6 \sum d^2 / n^3 - n$$

Where D is the difference between ranks of two variables, N is the total number of observations.

## Result and Findings

### 1. Correlation between Person Literacy Rate and Sex Ratio

Figure 1 reflects the results that person literacy and sex ratio has positive Correlation (0.47621).The result are significant at 0.69 levels. The inverse relationship indicates that increase in literacy leads to increase in sex ratio.

### 2. Correlation between Male Literacy Rate and Sex Ratio

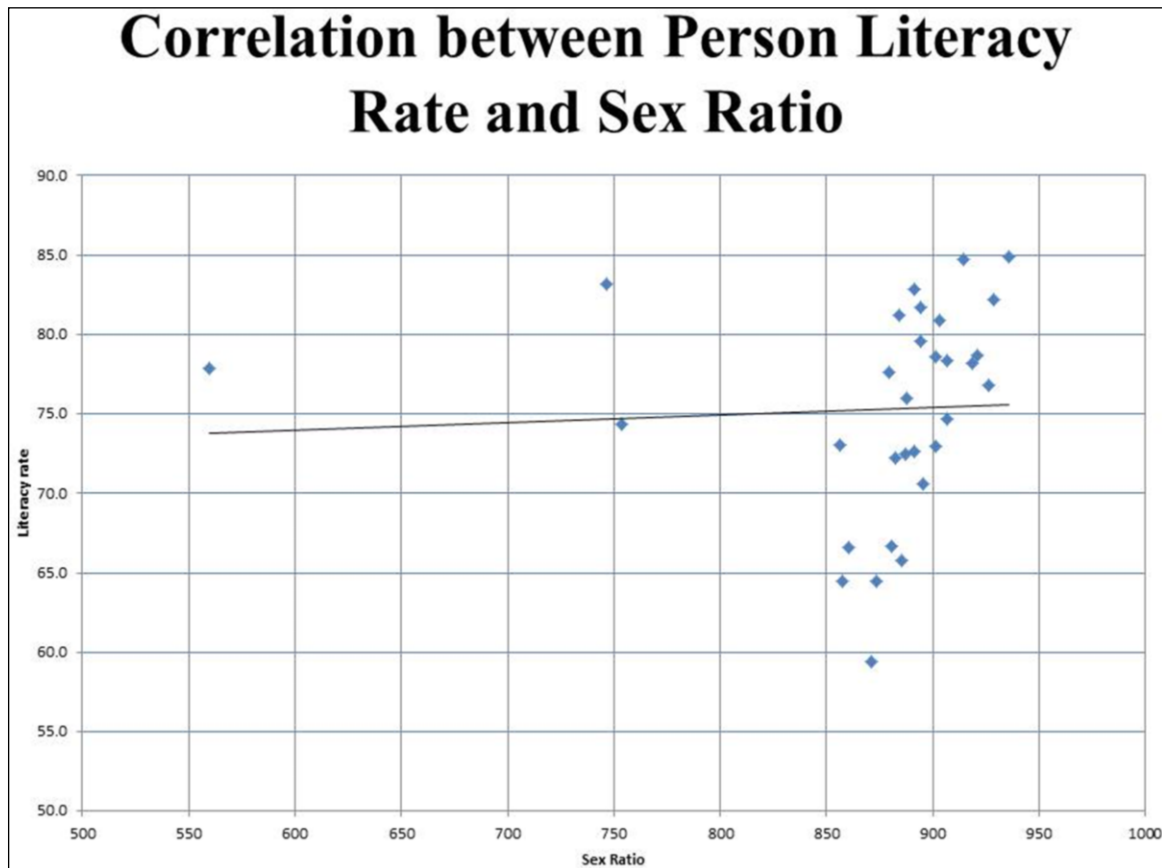
The relationship between male literacy and sex ratio also shows positive relationship (0.430241935). The results are significant at 0.65 levels. Hence proved, that increases in male literacy leads increase in sex ratio.

### 3. Correlation between Female Literacy Rate and Sex Ratio

The positive correlation (0.522580645) find in the case of sex ratio and female literacy rate. The results show significant relationship at 0.72 levels. The relation reelected that increase in female literacy rate also leads to increase in sex ratio.

**Table 1:** Ward wise literacy rate and sex ratio in Hisar

S. No	Ward No.	Sex Ratio	Literacy Rate	Literacy Male	Literacy Female
1	Ward No.1	907	74.7	79.3	69.6
2	Ward No. 2	894	79.6	82.3	76.5
3	Ward No.3	883	72.2	77.1	66.7
4	Ward Nov4	894	81.7	84.6	78.5
5	Ward No. 5	929	82.2	84.9	79.2
6	Ward No.6	891	72.6	76.7	68.1
7	Ward No.7	560	77.9	83.8	67.3
8	Ward No.8	901	78.6	82.5	74.3
9	Ward No.9	754	74.4	79	68.2
10	Ward No.10	871	59.4	67.1	50.6
11	Ward No.11	881	66.7	74.3	58
12	Ward No.12	895	70.6	78.3	61.9
13	Ward No.13	857	64.5	72.4	55.3
14	Ward No.14	860	66.6	74.2	57.7
15	Ward No.15	873	64.5	71.5	56.3
16	Ward No.16	885	65.8	73.4	57.2
17	Ward No.17	888	76	80.3	71.1
18	Ward No.18	901	73	78.8	66.5
19	Ward No.19	884	81.2	83.1	79
20	Ward No.20	891	82.9	85.4	80
21	Ward No.21	887	72.5	77.6	66.8
22	Ward No.22	921	78.7	81.6	75.5
23	Ward No. 23	936	84.9	85.9	83.9
24	Ward No.24	903	80.9	84.3	77.2
25	Ward No.25	856	73.1	79.3	65.8
26	Ward No.26	915	84.8	86.2	83.2
27	Ward No.27	907	78.4	82.6	73.7
28	Ward No.28	879	77.6	82.3	72.4
29	Ward No.29	918	78.1	83	72.8
30	Ward No.30	747	83.2	85.5	80.1
31	Ward No.31	926	76.8	80.9	72.3



**Fig 1:** Correlation between Person Literacy Rate and Sex Ratio

### Conclusion

To main objective the study effects significant positive correlation among literacy and sex ratio, female literacy rate and sex ratio and all person literacy rate and sex ratio. So subsequently it is concluded that improved level of literacy is be successful to change thinking of people. As a consequence, the evaluation of literacy and sex ratio is enormous considerable to change the sex selective abortions and traditional attitudes of the society.

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