

Correlation between Sex Ratio and Literacy in Haryana

A Regional Analysis

Surender Kumar
Research Scholar of MDU (Rohtak), Haryana

Abstract: The present research paper describes the pattern of correlation between literacy rate and sex ratio found in Haryana. The paper utilizes district level data on literacy and sex ratio in Haryana. Sex ratio and literacy both are important indicators of social change. Here we are conducting the study based on data available according to Census 2011. According to study, there is a perpetual relationship between literacy and sex ratio in Haryana. Although there are some others socio-economic factors which influence the pattern of sex ratio. The data is computed and calculated correlation between sex ratio and literacy by using Spearman's rank method. As per Census 2011, Haryana has 76.64% literacy rate and 877 females per 1000 males. The study reveals that there is a worst condition of sex ratio in Gurgaon, Sonapat, Jhajjar, Panipat, Rohtak, Panchkula, Jind, Hisar and Faridabad. These districts have sex ratio less than the state average (877), although these districts are more economic developed and have high literacy rate. The district like Mewat has highest sex ratio (906), although there is the lowest literacy in Haryana.

Key Words: Literacy, Gender inequality, Sex ratio, Correlation.

Introduction: Sex ratio is used to describe the number of females per 1000 of males. The sex ratio is the ratio of males to females in a population. In most sexually reproducing species, the ratio tends to be 1:1. This tendency is explained by Fisher's principle. Sex ratio is a valuable source for finding the population of women in India and what is the ratio of women to that of men in India. In the Population Census of 2011 it was revealed that the population ratio in India 2011 is 940 females per 1000 of males. The Sex Ratio 2011 shows an upward trend from the census 2001 data. Census 2001 revealed that there were 933 females to that of 1000 males. Since decades India has seen a decrease in the sex ratio 2011, but since the last two of the decades there has been in slight increase in the sex ratio. Since the last five decades the sex ratio has been moving around 930 of females to that of 1000 of males. There are three types of sex ratio as described; the primary sex ratio is the ratio at the time of conception, secondary sex ratio is the ratio at time of birth, and tertiary sex ratio is the ratio of mature organisms. In humans the secondary sex ratio is commonly assumed to be 105 boys to 100 girls (which sometimes is shortened to "a ratio of 105"). In human societies, however, sex ratios at birth or among infants may be considerably skewed by sex-selective abortion and infanticide. Sex ratio is defined as the number of females per thousand males. It affects on labour supply, level of urbanization, age of marries, population growth, status of woman etc. It is an important attribute of demography and is influenced by birth rate, death and out-migration. The sex ratio is found less due to various factors like dowry system, religion, negligence of girl child, early marriages, preference for boy child etc. However, it is biological fact that more males are born than females and primary and secondary sex ratio in any in favour of males (Ghosh,pp.98-99). According to Clark, (1960) the existing sex ratio in any area is determined by three basic factors. These are sex at the time of birth, difference in the mortality rates of

the two sexes, at different ages and difference in the migratory ethos of the two sexes. In Haryana, since very long period of time it had always remained unfavorable to female's birth.

Literacy is traditionally meant as the ability to read and write. The modern term's meaning has been expanded to include the ability to use language, numbers, images, computers, and other basic means to understand, communicate, gain useful knowledge, solve mathematical problems and use the dominant symbol systems of a culture. The concept of literacy is expanding in OECD countries to include skills to access knowledge through technology and ability to assess complex contexts. Literacy in India is a key for socio-economic progress, and the Indian literacy rate has grown to 74.00% (2011 Census) from 12% at the end of British rule in 1947. Although this was a greater than sixfold improvement, the level is below the world average literacy rate of 84%. Despite government programmes, India's literacy rate increased only "sluggishly". The 2011 Census, indicated a 2001–2011 decadal literacy growth of 9.2%, which is slower than the growth seen during the previous decade. An old 1990 study estimated that it would take until 2060 for India to achieve universal literacy at then-current rate of progress. There is a wide gender disparity in the literacy rate in India: effective literacy rates (age 7 and above) in 2011 were 82.14% for men and 65.46% for women. The low female literacy rate has had a dramatically negative impact on family planning and population stabilisation efforts in India. Studies have indicated that female literacy is a strong predictor of the use of contraception among married Indian couples, even when women do not otherwise have economic independence. The census provided a positive indication that growth in female literacy rates (11.8%) was substantially faster than in male literacy rates (6.9%) in the 2001–2011 decadal period, which means the gender gap appears to be narrowing. Literacy involves in cultural composition and sex ratio is discussed under biological composition (Ghosh, 1985, p.88). Among the various elements of population composition literacy and sex composition has a great importance in population study (Chandna, 2002 p.270). Education is not only an important need of life and the key factor in the process of development. The pattern of literacy varies from one to another states. It is affected by structure of occupation, government policies, socio-economic status, facilities and cultural life-style. It is found that there is close relation between diversification of economy and literacy. The districts which are highly urbanized and industrialized have high rate of literacy than in the agricultural districts. The woman status and level of literacy is positively correlated.

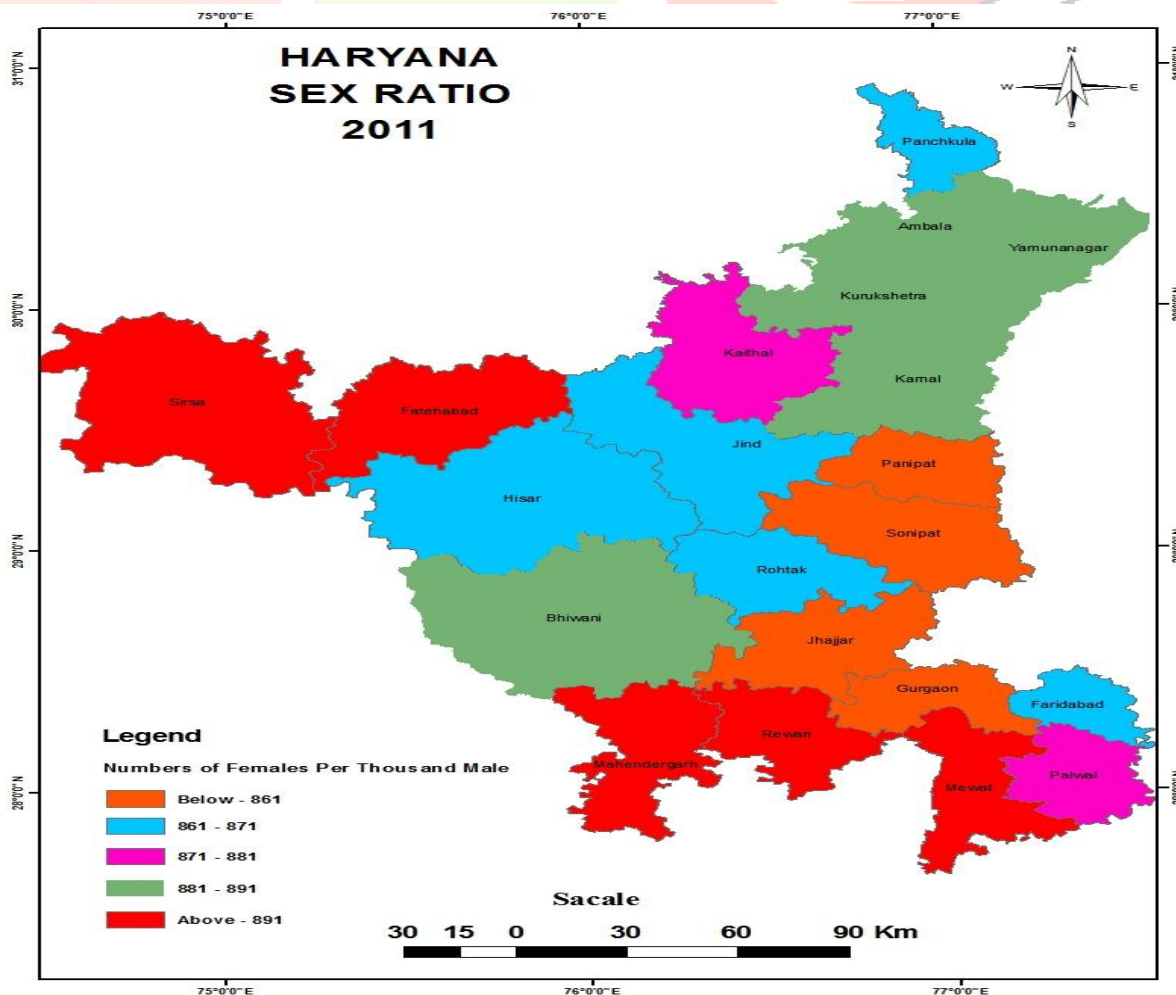
Study Area: Haryana has taken as study area for the present paper because this state is rapidly growing in context of economic advancement but there are worst conditions of sex ratio. Haryana has the lowest sex ratio (877) in India. This state came into existence on 1st Nov 1966, with the reorganization of Indian states on linguistic basis. Haryana has an agricultural culture and is one of the parts of oldest and greatest civilization of India. The state of Haryana is situated between 27 to 30 degree north latitudes and 74 to 77 degree east longitudes with an area of 44212 sq km. Administratively, the state has been divided into 22 districts.

Objectives:

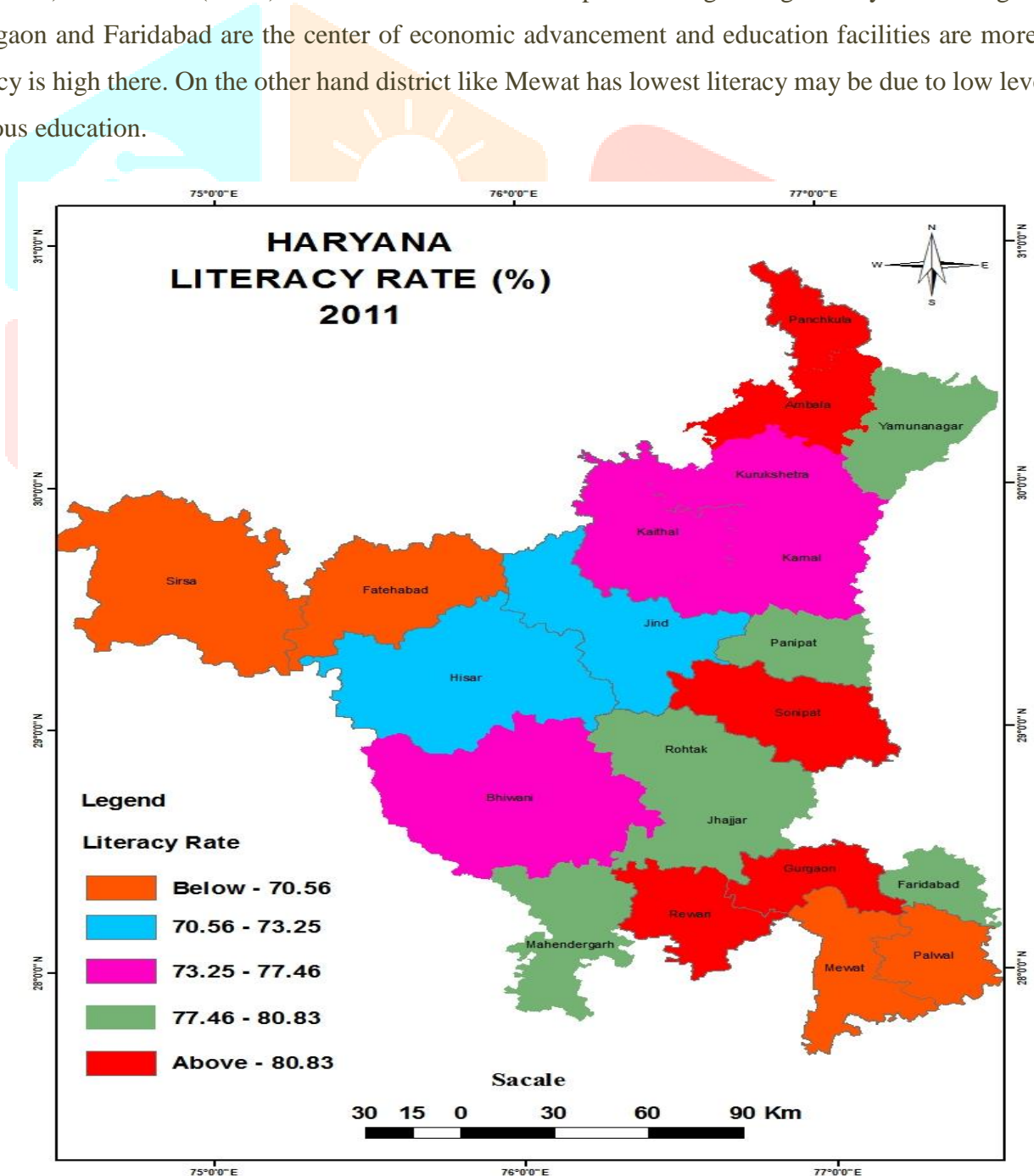
- To know the pattern of regional sex ratio and literacy rate in Haryana.
- To examine the various causes responsible for inequality in sex ratio and literacy.
- To know the correlation between sex ratio and literacy in study region.

Methodology: Research methodology is a vital for any research work. The present paper is totally based on secondary sources of data. The data are collected from Census of India 2011. Here, two main variables Literacy and Sex Ratio have been taken into consideration for the present study. The correlation between both variables is calculated by using the method of Spearman’s rank formula.

Regional Variation in Sex Ratio: The sex ratio in India has remained unfavorable to females, there is same tendency in Haryana also. Sex ratio has continuously decreased from 1901 to 2011 census (except negligible growth in 1951 and 1981). There are different causes responsible for declining sex ratio in Haryana. The less birth of girls may be possible due to high sex selective abortion, high son preference, dowry system, misuse of modern technology, socio-economic value of son, high maternal mortality rate, gaps in nutritional and educational level between male and female children etc. It is interesting to note that, the Census 2001 (861) and 2011 (877) introduced us to increase female population per 1000 males. No doubt, the balance between two sexes is an important aspect for better structure and social well being. As per Census 2011, 40% districts of Haryana have sex ratio below than state average (877). Gurgaon and Sonapat have recorded lowest (853) sex ratio per 1000 male population. This may be due to high male In-Migration from other states. Comparatively low sex ratio is also observed in other districts like Jhajjar (861), Panipat (861), Panchkula (870), Jind (870), Faridabad (871), Hisar (871). Mewat has recorded highest sex ratio (906) in Haryana. The districts like Fatehabad (903), Rewari (898), Mahendergarh (894), and Kurukshetra (889) have crossed the state average. It is also important to note that more critical sex ratio is observed in Gurgaon, Sonapat, Jhajjar and Panipat. Spearman’s rank order method is used for finding the correlation between two variables i.e. Literacy and Sex ratio. It is observed that there is a positive correlation between both variables in Haryana.



Regional Variations in Literacy: According to Census 2001, a person aged seven and above, who can both read and write with understanding in any language is treated as literate (Yearbook, 2010 p.6). The census of 2011 reveals that literacy rate has been an increased in Haryana. The total literacy rate in Haryana is 76.64% (64.84% in 2001), 85.40% for male literacy and 66.80% for female literacy. Almost 12% literacy has increased during 2001-11 decade. According to census 2011, among the different districts of Haryana, Mewat has recorded lowest literacy rate (56.14). It has also lowest position in terms of male literacy (73.0) and lowest female literacy (37.60). There are seven districts which have literacy below the state average (76.64). The districts are namely Bhiwani (76.74), Kurukshetra (76.70), Karnal (76.44), Hisar (73.24), Jind (72.73), Kaithal (70.56), Sirsa (70.35), Palwal (70.32), Fatehabad (69.13) and Mewat (56.14). Various factors are responsible for the high and low literacy levels in different districts in Haryana. Gurgaon has highest total literacy rate (84.44) but in female literacy Panchkula is on first rank and Gurgaon (77.5) secured second position. The highest male literacy rate is observed in Rewari (87.5). There are some districts which have literacy more than the state average, these are Gurgaon (84.44), Panchkula (83.44), Faridabad (83.4), Ambala (82.89), Rewari (82.23), Sonapat (80.83) and Rohtak (80.33). Economic factor is also important for growing literacy rate among females in the state. Gurgaon and Faridabad are the center of economic advancement and education facilities are more there that's why literacy is high there. On the other hand district like Mewat has lowest literacy may be due to low level of Income and religious education.



Correlation between sex ratio and literacy in Haryana, 2011

Sr no	Districts	Literacy	R1	Sex ratio	R2	d(R1-R2)	d2
1.	Panchkula	83.44	2	870	15.5	-13	169
2.	Ambala	82.89	4	882	9	-5	25
3.	Yamuna-nagar	78.89	9	877	12	-3	9
4.	Kurukshetra	76.70	13	889	6	7	49
5.	Kaithal	70.56	17	880	10	7	49
6.	Karnal	76.44	14	886	7	7	49
7.	Panipat	77.46	11	861	18.5	-7.5	56.25
8.	Sonepat	80.83	6	853	20.5	-14.5	210.25
9.	Jind	72.73	16	870	15.5	0.5	0.25
10.	Fatehabad	69.13	20	903	2	18	324
11.	Sirsa	70.35	18	896	4	14	196
12.	Hisar	73.24	15	871	13.5	1.5	2.25
13.	Bhiwani	76.74	12	884	8	4	16
14.	Rohtak	80.37	7	868	17	-10	100
15.	Jhajjar	80.33	8	861	18.5	-10.5	110.25
16.	Mahendergarh	78.87	10	894	5	5	25
17.	Rewari	82.23	5	898	3	2	4
18.	Gurgaon	84.44	1	853	20.5	-19.5	380.25
19.	Mewat	65.14	21	906	1	20	400
20.	Faridabad	83.04	3	871	13.5	-10.5	110.25
21	Palwal	70.32	19	879	11	8	64
	Haryana	76.64		877			2348.75

Conclusion: Literacy rate and Sex ratio are regarded important aspects of population study. Education is essential for personal and social development of a region. It is found that there is a strong negative correlation between literacy and sex ratio of the state. Rate of literacy depends on nature of occupation, govt policy, per capita etc. Sex ratio is defined total no of females as per 1000 males. It depends on the birth, death and migration. Due to high male migration from others districts, Gurgaon and Faridabad and Sonapat have low sex ratio. The sex ratio is found less due to prevalence of dowry system and high son preference. As per census 2011, highest female literacy is found in Panchkula (77.52) and lowest in Mewat (37.0) which shows a highly variability.

References:

- Agnihotri, S.B. (1995), 'Missing Females: A disaggregated analysis', Economic and Political Review, Aug. 19, pp. 2074-82.

- Arnold, F. and Roy, T.K. (1998), 'Sex Preference, the family building process and child mortality in India', Population Studies, Vol. 52, No. 3, pp. 302-15.
- Ayyar, N.P. and Shrivastava, D.S. (1978), 'Urban Sex Ratio in Madhya Pradesh: Distribution and Trends', National Geographer, Vol. 1, pp. 17-23.
- Anjali (1987), Prejudice against Girls: Abuse of Scientific Discovery Social Welfare, Dec. pp.10-11.
- Mehta, S. and Kaur, G. (1983), 'Rural Urban Differences in Sex Ratio of Rajasthan', The Indian Geographical Journal, Vol. 58, No. 2, pp. 152-60.
- Hassan, M.I. (2004), Population Geography, Rawat Publication, New Delhi.
- Chandna, R.C. (1996), Population Geography, Kalayani Publication, New Delhi.

