



REGIONAL VARIATION IN CHILD SEX RATIO OF JHARKHAND

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Daughter deficit is the major problem of today's society. Adverse child sex ratio reveals this problem. Being a tribal dominated state of the country Jharkhand has shown declining trend of child sex ratio over the decades. This article explored Jharkhand's child sex ratio and its regional variation in the state. Scenario of child sex ratio and over all sex ratio in the five administrative division of the state has been studied. Rural-urban differentials have also studied with the help of descriptive statistics. Son preference and dowry are the major determinant of neglecting girl child. If child sex ratio will not improve, then in future overall sex ratio became worse. For correcting adverse child sex ratio attitude towards girl child should be positive.

Keywords: Sex Ratio, Sex Differentials

INTRODUCTION

Women play a paramount role in the socio-economic density of the world. They not only constitute half of the human population of the globe but also sway the growth of remaining half. They produce half of the world's food supply, account for 60% of work force and contribute up to 30% of official labor force. (Chauaungo 2009) But society underestimated the importance of women since early years which is reflected in the sex ratio. By sex ratio it means number of female per 1000 male. According to 2011 census, sex ratio of India was 940 females per 1000 males. At first sight it shows a marginal improvement of 7 points from 2001 census and 13 points from 1991 census. But if we consider the last hundred years, we find that sex ratio has shown an alarming decline. It was 972 in 1901 as against 940 in 2011. 2011 census data indicates that the sex ratio is 940 per 1000 men. This is no doubt, represents a marginal improvement over 2001 census which shows 933 women per 1000 men. But the point of concern is the irreversible trend of Child Sex Ratio (CSR). In 2011 child sex ratio has declined to 914 girls per 1000 boys from 927 girls per 1000 boys in 2001.

It can be seen that there is a considerable regional variation in demographic trends of adverse sex ratio specifically the rapid decline in child sex ratio Jharkhand has also recorded a rapid decline in child sex ratio since last two decade. The decline in CSR from 1991 to 2011 was almost 31 points (979 in 1991 to 948 in 2011). Although child sex ratio of Jharkhand is higher than national average of 918. But it presents a disturbing scenario with 21 districts out of 24 has shown negative change in child sex ratio from 2001 to 2011. Only 3 districts have shown positive change in CSR. Child sex ratio is an indicator of girls and women's position in a society

This study is undertaken to focus on the CSR of Jharkhand and explore into the regional differential in it. By using census and NFHS (National Family and Health Survey) figures as a benchmark and an indicator, the study looks at the factors that are responsible for this negative change.

REVIEW OF LITERATURE

Early concerns related to declining OSR and CSR are expressed by many persons. Sen (1992) have raised an issue of concern with the mention of Missing Women. He statistically proved that during the last century 100 million women have been missing in South Asia due to discrimination leading to death experienced by them from womb to tomb in their life cycle. Jha & others (2009) studied that the adjusted sex ratio for the second birth when the preceding child was a girl was 759 per 1000 males, by contrast if the previous children were boys then it is almost equal. Sinha (2006) revealed that sex ratio for children under age group 0-6 years was inversely linked to economic growth, female education and female economic activity rate with relatively higher elasticity coefficients in urban areas of India, catalyzed by extensive use of sex determination test and sex selective abortions.

Many studies have also given statistical analysis of different countries as well as Indian child sex ratio to strengthen the argument of declining sex ratio has an outcome of human and technological intervention and not a natural phenomena. Most of the demographers and researchers produced statistically rich accounts of trends in sex ratio and child sex ratio from particular census or NFHS reports. Premi (2002) try to examine the socio-economic and cultural factors which are responsible for the neglect of girl child thereby resulting in lower sex ratio. Bora & Tyagi (2008) tried to explain the causes behind declining child sex ratio with reference to North Western states of the country. Sabu, Abel & Miller (1992) presented findings on female infanticide for rural south Indian population. The study reported that demographic consequences and social factors are associated with each other. George & Dahiya (1998) discussed the distortions in sex ratio at birth in several Asian countries. The study reveals that parents tend to be calculative in choosing the sex of the next child and the decision is based on the birth order, sex sequence of previous children and number of sons. Patel, (2002) highlighted that the overall sex ratio in Kerala has always been in favor of women, but not for females in the age group 0-6. Percentage of families with one surviving son who accepted sterilization is 40% in Kerala compared to 27% at the all India level.

An overview of research clearly reveals that a good number of studies have been conducted on the problem of disturbing sex ratio in India. A good number of the above studies have covered different issues pertaining to the problem. Most of above reviewed studies are based on secondary data sources (census, NFHS) and are more concentrated to Northern, Central and Southern region of country.

Jharkhand is 28th state of India; it was formed on 15th November, 2000. Ranchi is the state capital and sub capital of the state is Dumka. The state has 24 districts. It shares its border with the states of Bihar to North, Odisha to the South, West Bengal in East, Chhattisgarh and Uttar Pradesh in West.

The total population of the state is 3,29,88,134 out of which 1,69,30,315 are male and 1,60,57,819 are female. Population density of the state is 414 sq km. The state holds 6th rank in terms of scheduled tribe population among Indian states. The total percentage of schedule

tribe in Jharkhand in 2011 was 26.3%. In terms of proportion, scheduled tribe population constitutes 26.2% (rural 31.4% and urban 9.8%).

There are five divisions in Jharkhand-

1. PALAMU DIVISION consisting three districts Palamu, Garhwa and Latehar (situated in North Western side)
2. SOUTH CHOTANAGPUR DIVISION consisting five districts Lohardaga, Gumla, Simdega, Ranchi and Khunti.
3. NORTH CHOTANAGPUR DIVISION consisting seven districts Chatra, Hazaribag, Koderma, Dhanbad, Giridih, Bokaro and Ramgarh.
4. KOLHAN DIVISION consisting three districts West Singhbhum, East Singhbhum and Saraikela Kharsawan (situated in Southern side).
5. SANTHAL PARGANA DIVISION consist of six districts Jamtara, Deoghar, Dumka, Pakur, Godda and Sahibganj (situated in eastern side).

MATERIAL AND METHOD

The proposed article is based on secondary data sources. Secondary sources includes published and unpublished resources like Census of India Report, demographic tables of NFHS I, II, III, IV, reports from Ministry of Health, articles, books and previous work related to sex ratio and child sex ratio.

According to census of India, sex ratio is number of females per 1000 male in the population. It is mainly the outcome of the interplay of sex differentials in mortality, sex selective migration, sex ratio at birth and at times the sex differential in population enumeration.

$$\text{SEX RATIO} = \frac{\text{Total Number of Female}}{\text{Total Number of Male}} \times 1000$$

As per census metadata, child sex ratio has been defined as the number of females in the age group 0-6 per 1000 male in the same age group in the population. It is expressed as the number of female children age 0-6 years per 1000 male children age 0-6 years.

$$\text{CHILD SEX RATIO} = \frac{\text{Total Number of Female children in 0-6 age group}}{\text{Total Number of Male Children in 0-6 age group}} \times 1000$$

DISCUSSION

Divisional Variation

There is a considerable regional variation in demographic trends of adverse Child Sex Ratio in all the districts of Jharkhand. The decline is particularly significant in North districts of the state which generally constitute Non-Tribal belt of the state. Another crucial factor indicated in the data is that there is contrast with rural and urban regions of each district.

When we census data it reveals that child sex ratio has been declining at a faster rate. Overall Sex Ratio has gone up by 26 points from 1991 to 2011. Child Sex Ratio has shown decline of 31 points for same period. It reveals the severity of the problem.

Table 1: Overall Sex Ratio And Child Sex Ratio Of Jharkhand

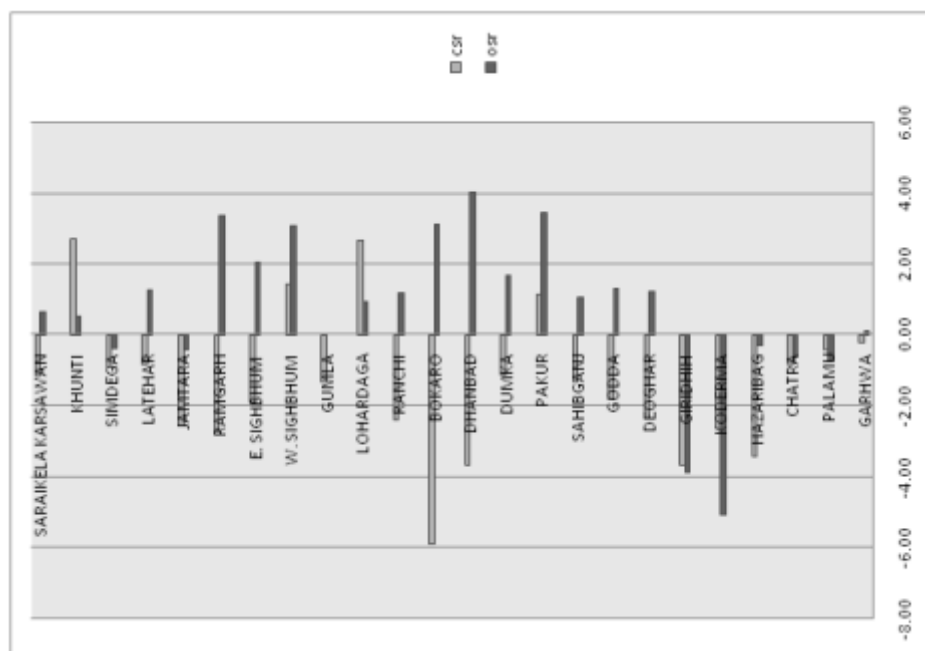
Year	Child Sex Ratio	Overall Sex Ratio
1991	979	922
2001	965	941
2011	948	948

Source: Census Of India, 2001 & 2011

In different districts of Jharkhand, there is huge variation in CSR and OSR. Percentage change in both the variable has shown that CSR reflects more negative trends. (Chart 1)

There are only 3 districts LOHARDAGA, WEST SINGHBHUM and KHUNTI shows positive change in CSR rest all have negative change. BOKARO, DHANBAD and HAZARIBAG shows highest negative change with -5.89%,-3.68% and -3.42% respectively. In comparison to OSR, CSR reflects worse condition.

Chart 1: Percentage Change in CSR And OSR in Districts Of Jharkhand



Source: Researchers' Compilation from Secondary Data (Census Of India, 2011)

The five administrative divisions of Jharkhand show different values for CSR and OSR over the decade. Divisional variation can be shown from the following Table 2.

Table-2: Divisional Variations in OSR And CSR in Jharkhand

DIVISION%	CHANGE IN CSR%	CHANGE IN OSR	OSR/CSR
Palamu	-0.52	0.21	0.97
North Chotanagpur	-3.32	-0.11	0.97
South Chotanagpur	0.1	0.41	1.06
Kolhan	-0.52	2	0.99
Santhal Pargana	-1.43	1.38	0.96

Source: Researchers' Own Compilation Based On Secondary Data (Census Of India, 2001 & 2011)

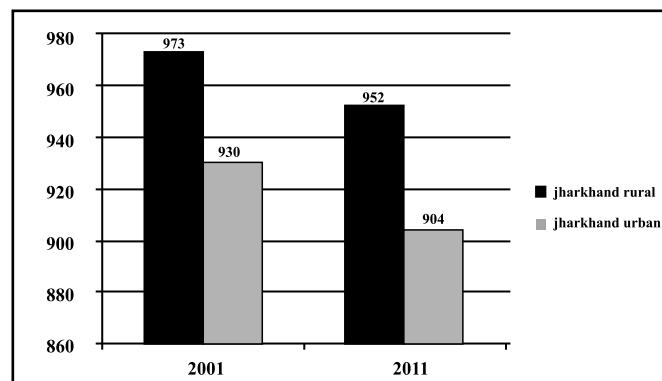
All the divisions show negative percentage change in CSR except South Chotanagpur. Highest negative change in CSR and negative change in OSR is found in North Chotanagpur, which reflects that condition is WORST in NORTH CHOTANAGPUR. OSR/CSR ratio is greater than one only for South Chotanagpur division which reflects that condition is BEST in NORTH CHOTANAGPUR division.

In the last two decade CSR has declined all over but percentage change in rural and urban is different; Rural Jharkhand has shown -2.15% declines in CSR, whereas Urban Jharkhand has shown -2.79% declines in CSR. Moreover, rural-urban gap is also increasing. Rural-urban gap in 2001 was 43 points, whereas, it increases to 48 points in 2011.

Rural-Urban Differentials

Total population of Jharkhand is 3,29,88,134 out of which 75.95% lives in rural areas whereas, 24.04% lives in urban areas. CSR of Jharkhand for 2011 was 948 but for rural and urban Jharkhand, there is huge difference in CSR value (Chart 2).

Chart 2: Rural-Urban Differential In CSR : Jharkhand



Source: Census Of India, 2001 & 2011

**Table 3: Descriptive Statistics of CSR In Rural And Urban Area
For 2001 & 2011: Jharkhand**

	2001	2001	2011	2011
	Rural	Urban	Rural	Urban
Mean	971.4	936.2	958.45	925
Standard Deviation	9.05	20	12.98	25.39

Source: Researchers' Compilation from Secondary Sources (census of India, 2001& 2011)

Above Table 3 shows that mean of rural CSR is greater than mean of urban CSR. It means that, CSR in rural area is better than urban area. Standard deviation for rural areas is less than urban, although from 2001 to 2011 value of Standard deviation of rural increases but still its value is smaller from urban. It means CSR is less varied or dispersed in comparison to urban Jharkhand, which means in rural area situation is better than in urban areas. Although variation increases from 2001 to 2011 but still there is difference in variation of CSR in rural and urban areas.

CONCLUSION

This study reveals that there is significant decline (about 17 point) in CSR in 2011 over 2001 in the state of Jharkhand and about 31 points from 1991 to 2011.

There is huge regional variation in CSR as per the administrative division of the state. North Chotanagpur Division is showing worst condition whereas South Chotanagpur Division is in better condition in CSR.

There is also Rural-Urban differential exist in CSR for the state of Jharkhand. The difference between rural and urban increased from 2001(43 points) to 2011 (48 points) for Jharkhand. Rural CSR of Jharkhand is better than Urban CSR. North Chotanagpur division is rural dominated area and it shows better numbers of CSR, whereas urban dominated North Chotanagpur division shows worse condition of CSR. CSR in tribal region of Jharkhand is better than Non-Tribal region of Jharkhand as, North Chotanagpur division is in non tribal belt of Jharkhand and its condition in CSR is bad in comparison to South Chonagpur Division of tribal belt.

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