



Regional Pattern of Gender Inequality in Jharkhand: A District Level Analysis

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***Abstract:** This study examines the regional pattern of gender inequality in Jharkhand using district-level data from Census 2011, NFHS-5, and other secondary sources. The analysis focuses on key indicators such as sex ratio, female literacy, health conditions, and economic participation of women. The findings reveal significant variations across districts, with tribal-dominated areas generally showing better sex ratios compared to more industrialized districts. Despite some improvement in the overall sex ratio after the formation of the state, gender inequality remains a major concern due to factors like low female literacy, poverty, patriarchal social norms, and limited access to healthcare and education. The study highlights that gender inequality in Jharkhand is multidimensional in nature and varies spatially across districts. It concludes that targeted district-level policies, improvement in education and healthcare, and stronger awareness programs are essential to promote gender equality and balanced regional development.*

***Keywords:** Gender Inequality, Sex Ratio, Jharkhand, District-Level Analysis, Female Literacy, Health Indicators, Regional Disparities, Socio-economic Factors, Women Empowerment, Spatial Pattern*

Introduction

Population composition denotes population structure. The composition of the population includes various types of elements of the population which systematically describe the structure of the population. That includes age structure, sex composition, Literacy level, occupational structure, and rural-urban composition and many more. According to Franklin (1956, P. 168) rightly observes: Among all components of population composition, the study of sex composition (age or gender composition) becomes extremely important because it directly influences the social, economic and demographic structure of a society. Franklin (1956, P. 168) rightly observes that sex ratio was an index of economy prevailing in an area and was a useful tool for regional analysis. The profound effect of the proportion of the two sexes upon the other demographic elements like population growth, marriage rates, occupational structure, has also

been well recognized. (Shryock, 1976, P. 105). Thus, the knowledge of sex ratio is essential for understanding the employment and consumption patterns, social need etc. of a community. (Trewartha (1953) According to Trewartha - the proportion of two sexes is fundamental to the geographic analysis of an area because it is not only an important feature of the landscape but it also influences the other demographic elements significantly and as such provides an additional means for analysing the regional landscape. (Trewartha). Thus we can understand that the sex ratio refers to the proportion of females and males in a population. Now, we can understand that the sex Ratio is the most important indicator for showing gender inequality in any region. As per 2011 census, the overall sex ratio of India was (940) females per 1000 males, whereas in Jharkhand, the sex ratio was (943) females per 1000 males.

If we look at different states of India, there are significant variations in the sex ratio found. As per 2011 census, the highest sex ratio was found in Kerala (1084) whereas the lowest sex ratio was observed in Haryana (879).

Demographic profile of Jharkhand

Jharkhand is a tribal dominated State of India, which was established on 15 November 2000 after being separated from Bihar. At the time of its formation, there were a total eighteen districts here, but later the number of districts increased to 24 at present. The total geographical area of Jharkhand is about 79,714 square kilometres, which is approximately 2.4% of the total geographical area of India. According to the census of India 2011, the total population of the state is 3.29 Crore (32988134) which constitutes 2.72% of the country's population where ratio of male and female population are 1.69 crore and 1.60 crore as well. Jharkhand is predominantly a rural area where 76% of population are living in rural areas.

The overall sex ratio of Jharkhand is 948 which means that there are only 948 females in per 1000 male population. If we talk about educational level, the overall literacy rate of Jharkhand is 66.41%, while the female literacy rate is about 56.21%. Women in Jharkhand face multiple challenges such as low literacy, poor health services, early problems of early marriage and economic vulnerability but at the same time, different government schemes and rising awareness towards women empowerment are contributing towards women empowerment in the state.

Objectives of the study

- I. To examine the key indicators of gender inequality at the district level.
- II. To examine the spatial distribution of sex ratio across districts of Jharkhand.
- III. To study socio-economic determinants influencing gender inequality.

Data sources and Methodology

For the analysis of the present study, the data used has primarily been derived from secondary sources such as Census of Jharkhand 2011, Statistical handbook of Jharkhand, National family health survey data-15 (2019-21), District census handbook of all 24 districts and various other references have been utilized. For this study data and information has been collected with the help of books, research articles and many government reports. The numerical measurement of

sex composition in a population is usually expressed in terms of sex ratio. In various countries, sex ratio is calculated in different norms (Maurya, 2015 Pg - 155). But in India it is calculated as under:-

$$\text{Sex Ratio} = (\text{Total females} / \text{Total Males}) \times 1000$$

$$\text{or } (P_f / P_m) \times 1000$$

It means the number of females in per 1000 males population. where P_f = number of female, P_m = number of male (Chandana, 1986 Pg-132)

Key indicators of gender inequality at the district level

Gender inequality in Jharkhand can be assessed through various indicators, which reflect the prevailing gender inequality in society. This inequality can be seen in Jharkhand in the form of social, economic, demographic, educational levels, Health services and women's participation in decision making. The pattern of gender inequality in various districts of Jharkhand can be understood through the following given chart:

Table: 1 Indicators of gender inequality in Jharkhand.

SN	Main Indicator	Sub-indicators
1	Demographic	1. Sex Ratio
		2. Child Sex Ratio
2	Educational Status	1. Female Literacy Rate
		2. Gender Gap in Literacy Rate
		3. Dropout Rate of Girls
		4. School Admission of Girls
3	Economic Status	1. Female Work Participation Rate
		2. Wage and Employment Gap
		3. Monthly Income of Women
4	Health Status	1. Maternal Mortality Rate
		2. Nutritional Value
		3. Anaemia among Women
		4. Infant Mortality Rate
5	Social Indicators	1. Domestic Violence
		2. Women Participation in Decision Making
		3. Early Marriage

Source: Compiled by the author with the help of NFHS-5 (2019–21) data.

Table 2: Some prevalent main indicator of gender inequality in Jharkhand

SN	Districts	Female Population ¹	Sex Ratio ²	Anaemia among Women (%) ⁵	Female Literacy Rate (%) ³	Female Work Participation Rate (%) ⁴
1	Sahibganj	561176	952	71.8	43.31	34.6
2	Godda	608000	938	68.5	46.25	34.7
3	Pakur	451000	989	69.9	40.52	37.9
4	Deoghar	702000	925	66.4	51.80	26.5
5	Dumka	647000	971	67.2	48.82	37.8
6	Jamtara	395000	954	65.7	52.15	33.7
7	Giridih	1218000	944	64.8	48.82	31.0
8	Koderma	366000	950	63.9	53.23	28.1
9	Hazaribagh	832000	947	62.5	58.95	28.4
10	Chatra	549000	953	64.1	49.92	32.1
11	Bokaro	1022000	922	60.8	60.63	23.7
12	Dhanbad	1208000	909	59.7	64.29	22.5
13	Ramgarh	463000	921	60.5	63.09	22.7
14	Khunti	270000	997	61.9	53.69	41.5
15	Gumla	514000	993	57.3	55.90	42.6
16	Simdega	300000	997	55.9	59.92	44.3
17	Lohardaga	225000	985	59.8	57.69	41.8
18	Latehar	373000	967	63.4	48.68	38.3
19	Palamau	969000	928	64.7	52.09	31.5
20	Ranchi	1419316	949	58.2	67.44	28.11
21	Garhwa	648000	935	65.2	47.58	31.6
22	West Singhbhum	747000	1005	61.5	46.25	41.2
23	East Singhbhum	1110000	949	58.6	66.81	25.0
24	Seraikela-Kharsawan	530000	956	60.2	55.88	33.8

Source: Data of superscripted parameters (1,2,3 &4) of above table is taken from census of Jharkhand 2011(Primary Census Abstract). Data of superscripted parameters 5 of above table is taken from National Family Health survey-5,District fact-sheet 2019-21.

Table No. 2 represents the statistical data of selected indicators of gender inequality in Jharkhand, there are several major indicators and sub-indicators used to understand gender inequality, however due to unavailability of comprehensive and reliable data for all indicators for all 24 districts of Jharkhand, only a limited but significant set of indicators has been selected for this study. Accordingly, Table No. 2 includes key indicators such as the total female population, sex ratio data, female literacy rate (%), percentage of women anaemia among women and the female work participation rate (%), which together help in understand the situation of gender inequality in the state. If we consider the total female population in Jharkhand, it constitutes approximately [blank] % of the state's population. However, this proportion alone does not fully explain the nature of gender imbalance.

In comparative terms, several districts of Jharkhand show a relatively higher proportion of female population such as Ranchi, Giridih, Dhanbad, Bokaro, and East Singhbhum. Jharkhand currently has a total of twenty-four districts, among which some of the most developed districts include Ranchi, Hazaribagh, Giridih, Bokaro, and Palamu. Ranchi, being the capital and a relatively developed urban center, has better economic conditions, educational facilities, healthcare services, and overall standard of living. Despite this, the sex ratio in Ranchi is only 949 females per 1000 males, which is just slightly above the state average. Although it records the highest female literacy rate in the state (around 67.44 percent), the prevalence of anaemia among women remains high at 58.2 percent, indicating gaps in healthcare delivery. Additionally, female work participation in this district is relatively low. In other developed districts such as Giridih, Bokaro, Dhanbad, and East Singhbhum, where the female population exceeds one million, female literacy levels range between 48 to 65 percent. The sex ratio in these districts is comparatively lower than in tribal-dominated regions, reflecting persistent gender inequality in more industrialized areas. The burden of anaemia among women is particularly severe in districts like Sahibganj (71.8 percent), Deoghar (66.4 percent), Dumka (67.2 percent), and Palamu (64.7 percent), where a large proportion of women suffer from anaemia and the sex ratio remains below the state average. In contrast, West Singhbhum records the highest sex ratio in the state (1005 females per 1000 males), suggesting relatively better gender balance. Similarly, tribal-dominated districts such as Lohardaga, Gumla, Simdega, Latehar, Khunti, Koderma, and Pakur show sex ratios higher than the state average. This reflects relatively better status and empowerment of women in rural and tribal societies. Furthermore, districts such as Simdega, Lohardaga, Gumla, and Khunti exhibit the highest female work participation rates in the state. However, despite higher participation in economic activities, the level of female literacy in these districts remains moderate, generally ranging between 45 to 60 percent.

Spatial distribution of sex ratio across all districts, 2011

An analysis of the sex ratio across all districts of Jharkhand reveals that the highest sex ratio is recorded in West Singhbhum (1005), whereas the lowest sex ratio is found in Ramgarh (921). Furthermore, it is observed that out of the total 24 districts in the state, nearly 50% of the districts have a sex ratio higher than the overall state average that was 948 in 2011 census. This wide gap highlights the uneven demographic pattern within the state. Districts with higher sex ratios are predominantly Tribal dominated areas such as West Singhbhum (1005), Dumka (977), Gumla (993), Pakur (989), Khunti (997), Simdega (997) and Lohardaga (985), where traditional social structures tend to offer relatively better status to women. On the other side, all such districts have higher industrial and economic development, a relatively low sex ratio is observed. such as Dhanbad (909), Bokaro (922), Palamau (928), West Deoghar Singhbhum (925) and Ramgarh (921).

In the table given below, Jharkhand has been classified into five major categories on the basis of sex ratio (Jhariya & Jain 2016) which are as follows:

Table 3: Variations of sex ratio in Jharkhand 2011

Groups of Sex Ratio	Range	No. of Districts	Name of Districts
Very High	> 1000	1	West Singhbhum
High	971–1000	6	Dumka, Gumla, Pakur, Khunti, Simdega, Lohardaga
Moderate	951–970	5	Sahibganj, Chatra, Saraikela, Jamtara, Latehar
Low	930–950	7	Ranchi, Giridih, East Singhbhum, Hazaribagh, Garhwa, Godda, Koderma
Very Low	< 930	5	Dhanbad, Bokaro, Palamau, Ramgarh, Deoghar

Source: Compiled by author with the help of sex ratio data.

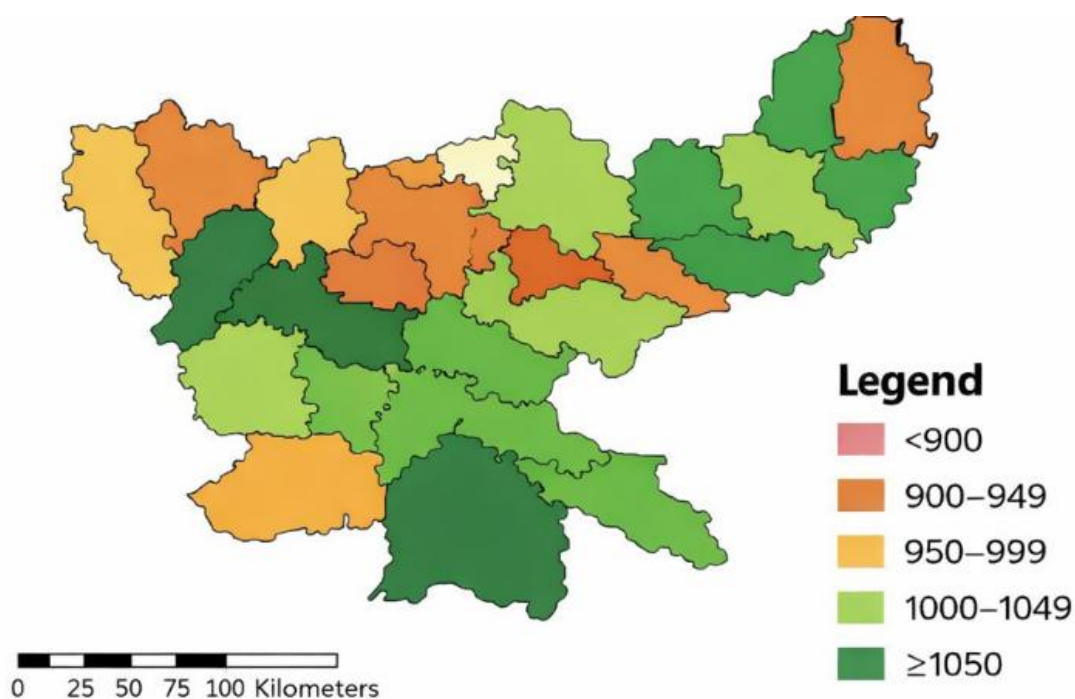


Fig. 1: Regional Pattern of Sex Ratio in Jharkhand (2011)

Table 4: Comparison of sex ratio between India and Jharkhand

Year	India ¹	Jharkhand ²
1951	946	961
1961	941	960
1971	930	945
1981	934	940
1991	927	924
2001	933	941
2011	943	948

Source: 1: Census of India (1951-2011) (Primary Census Abstract), 2: A. Prakash (2001) and Census Publication (1991-2001)

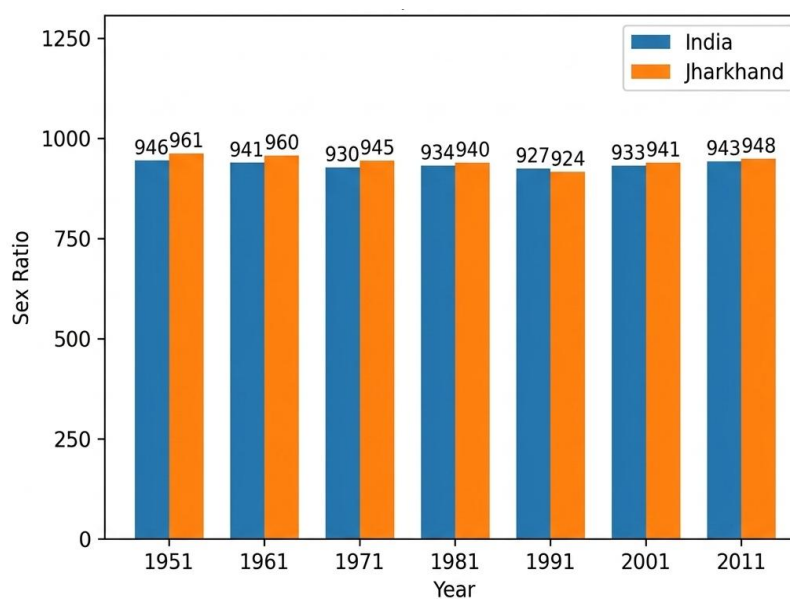


Fig. 2: Comparison of Sex Ratio between India and Jharkhand

Source: 1: Census of India (1951-2011) (Primary Census Abstract) ,2: A. Prakash (2001) and Census Publication (1991-2001)

The data reveals important trends in the sex ratio of India and Jharkhand over last six decades from (1951 to 2011). Since 2000 Jharkhand was a part of Bihar before the year 2000, that is why separate and independent data on sex ratio were not distinctly available in official census report. Therefore, the data of sex ratio have been collected through secondary sources such as A. Prakash (2001), Census Publication (1991–2001). This source indicates that the sex ratio in the Jharkhand regions showed declining trend from 1951 to 2001, which occurred as a result of widespread socio-economic factors, a male dominated society and regional disparities in

Jharkhand. But after the formation of Jharkhand in 2000, an improvement in the sex ratio was observed, which increased to 948 in 2011. On the other side India's sex ratio also fell from 946 to 927 during 1951 to 1991. After 1991 India's sex ratio improved from 927 (1991) to 933 (2001) and further to 943 (2011). This improvement in both regions may be attributed to government initiatives, rising awareness, better female literacy and health services.

Key determinants and causes of the declining sex ratio in Jharkhand

- Female Foeticide
- Deep rooted son preference in family
- Poverty and different economic factors
- Low female literacy and Education
- Patriarchal Social Norms
- Weak implementation of PCPNDT Act
- Male selective migration
- Girls trafficking
- Increased Violence
- Dowry System
- Declining child sex ratio (0-6 Age group)
- Gender discrimination in feeding system
- Lack of women empowerment

Conclusion

The study clearly shows that gender inequality in Jharkhand is still a serious issue, though some improvements have been seen over time. The sex ratio, literacy rate, health conditions, and economic participation of women vary widely across different districts, showing an uneven pattern of development. Tribal-dominated districts generally have better gender balance, while industrial and economically developed areas show lower sex ratios. Major causes of inequality include low female literacy, poverty, social norms, and lack of awareness. However, government efforts and increasing awareness are slowly improving the situation. Therefore, more focused policies, better education, healthcare facilities, and strong social awareness are needed to reduce gender inequality and ensure equal opportunities for women in all districts of Jharkhand.

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