SPATIO-TEMPORAL VARIATION IN SEX RATIO OF JALNA DISTRICT IN MAHARASHTRA

Dr. Bhalerao Ashok Shahaji
Head Department of Geography, Chistiya college of Arts, Khultabad, Dist.Aurangabad.

ABSTRACT:
The Indian censuses define sex ratio as the number of females per 1000 males. Influenced mainly by sex differential in mortality and migration and the sex ratio at birth it is the basic social indicator to measure the prevailing equity between males and females. The sex ratio is a suitable demographic indicator reflecting the population composition of the economic and social implications thereof. It plays the pivotal role in assessing the reproductive performance, mortality, occupational structure and the migratory character of the population. Sex composition is of great interest to the population geographers. Sex ratio is a noteworthy demographic and cultural index. The ratio can reflect biological, social, economic and migration characteristics of population.

KEYWORDS: Sex Ratio, Spatio-temporal, Socio-economic

INTRODUCTION
An understanding of the sex ratio of a population in the spatial context is one of the vital demographic characteristics of any region. Apart from itself being an important regional characteristic, sex ratio not only mirrors the socio-economic condition of an area but also reflects a stage in the historical development of population (Franklin, 1956). It has a strong bearing on birth and death rates, migration, size and composition of households and the occupational structure of any region (Hawley, 1959). Sex ratio is the most important demographic characteristics that reflect the status of women in society. It is defined as the ratio of females per 1000 male population (Dawn and Basu, 2015). It is a great source to find the equality of males and females in a society at a given period of time (Pednekar and Sita, 1980).

STUDY AREA
Jalna district is situated in the central part of the Maharashtra state of republic of India and northern direction of Marathwada region. Especially district lies between 19°01’ North to 21°03’ North latitudes and 75°04’ East to 76°04’ East longitude. (Fig 1.1)
Jalna district erstwhile a part of Aurangabad district was formed on 1st May, 1981 by carving out Jalna district, Bhokardan, Jafrabad and Ambad tahsil of Aurangabad district and Partur tahsil of Parbhani district. The boundaries of Jalna are adjacent to Parbhani and Buldhana on east, Aurangabad on west, Jalgaon on north and Beed on south. Jalna district covers an area of 7,727 sq. km which is 2.51 percent of the total state area. It has population of 19.58 lakh as per 2011 census. Recently Jalna district is divided into eight tahsil for administrative purpose these are Jalna, Ambad, Bhokardan, Jafrabad, Badnapur, Partur, Mantha and Ghansawangi.
OBJECTIVE OF STUDY -
The study has been initiated to fulfill the following objectives are:
1. To identify and examine the spatio-temporal variation in sex ratio of Jalna District from 1981-2011.
2. To study the factors responsible for variation in sex ratio with the variation of places.

DATA BASE METHODOLOGY
This study is based on the reliable and accurate census data. The required secondary data will be collected from the following sources. Census of Maharashtra and District census handbook (1901 to 2011). Published records of the Government like. Socio-economic Review, Census of Maharashtra, Records of Zilla Parishad, District Statistical Abstract. District Gazetteers. To calculate the sex-ratio of population formula will be used as given below.

\[
\text{Sex Ratio} = \frac{\text{Female Population}}{\text{Male Population}} \times 1000
\]

Fig No-1.1
SPATIO-TEMPORAL CHANGES IN SEX RATIO

The tahsil wise analysis shows the dreadful condition of sex ratio in the study region. According to this analysis, it is clearly shown that the sex ratio for the study region was high in 1981 period, but it has dropped down during next period.

Below mention table shows the spatio temporal analysis of sex ratio in Jalna district which also shows fluctuation of sex ratio in last three decades. In the first decade 1981 highest sex ratio (995) observed in Partur and Ambad tahsil and lowest sex ratio observed in Bhokardan tahsil. In the next decade 1991 sex ratio decline in all tahsil and highest sex ratio observed in Jafrrabad tahsil and lowest sex ratio observed in Jalna tahsil.

**Table No – 1**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>BHOKARDAN</td>
<td>974</td>
<td>952</td>
<td>946</td>
<td>955</td>
<td>22</td>
<td>06</td>
<td>09</td>
</tr>
<tr>
<td>02</td>
<td>JAFFERABAD</td>
<td>985</td>
<td>988</td>
<td>961</td>
<td>953</td>
<td>03</td>
<td>27</td>
<td>08</td>
</tr>
<tr>
<td>03</td>
<td>JALNA</td>
<td>994</td>
<td>943</td>
<td>950</td>
<td>955</td>
<td>51</td>
<td>07</td>
<td>05</td>
</tr>
<tr>
<td>04</td>
<td>BADNAPUR</td>
<td>965</td>
<td>954</td>
<td>964</td>
<td>965</td>
<td>11</td>
<td>10</td>
<td>01</td>
</tr>
<tr>
<td>05</td>
<td>AMBAD</td>
<td>995</td>
<td>966</td>
<td>952</td>
<td>959</td>
<td>29</td>
<td>14</td>
<td>07</td>
</tr>
<tr>
<td>06</td>
<td>GHANSAWANGI</td>
<td>978</td>
<td>959</td>
<td>980</td>
<td>980</td>
<td>19</td>
<td>21</td>
<td>00</td>
</tr>
<tr>
<td>07</td>
<td>PARTUR</td>
<td>995</td>
<td>975</td>
<td>1004</td>
<td>962</td>
<td>20</td>
<td>29</td>
<td>42</td>
</tr>
<tr>
<td>08</td>
<td>MANTHA</td>
<td>986</td>
<td>949</td>
<td>976</td>
<td>957</td>
<td>37</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Again condition reversed Partur tahsil shows highest 1004 sex ratio in study region and lowest sex ratio observed in Bhokardan 946 tahsil. In next decade highest sex ratio 980 is recorded in Ghansawangi tahsil and lowest 953 sex ratio is observed in Jafrrabad tahsil.

**GRAPH NO – 1**

**JALNA DISTRICT – SEX RATIO (1981-2001)**

![Graph showing sex ratio changes from 1981 to 2011 for different tahsils in Jalna district.](image-url)
FLUCTUATION OF SEX RATIO

In the first decade 1981-1991 highest fluctuation 51 have observed in Jalna tahsil and lowest were in 03 in Jafrabad tahsil. For the next decade 1991-2001 highest fluctuation 29 had seen in Partur tahsil and lowest observed in Jalna tahsil. In the last decade 2001-2011 highest fluctuation 42 observed in Partur tahsil and lowest 00 observed in Ghansawangi tahsil.

Table No - 2
JALNA DISTRICT – SEX RATIO (1981-2001)

<table>
<thead>
<tr>
<th>Females per thousand Males</th>
<th>Number of Tahsils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 925</td>
<td>00</td>
</tr>
<tr>
<td>925-960</td>
<td>00</td>
</tr>
<tr>
<td>Above 961</td>
<td>08</td>
</tr>
</tbody>
</table>


Areas of High sex ratio (Above 961) -
In the census year 1981 all eight tahsil were found in this high sex ratio group. In the next census year 1991 there were 03 tahsil noticed, 05 tahsil were observed in 2001 and 03 tahsil recorded in 2011 census year.

Areas of Moderate sex ratio (925-960)
In the census year 1981 none of tahsil observed in moderate group, next decade 05 tahsil were observed in this group. And 03 tahsil as well as 05 tahsil were observed in this moderate group.

Areas of Low sex ratio (Below 925)

CONCLUSION:
There are many responsible factors behind the declining sex ratio in Jalna District such as education, poverty, male dominancy, lack of women empowerment, the social status of women and finally thinking of the human being etc. The sex ratio for the Maharashtra State large variation during the study period. Proportion of females per thousand males is not satisfactory in the study region. At the policy level there emphasis has been laid on gender equality, but nothing has been done to alter the fundamentals of the family system in order to make daughters and sons equally valuable to their parents.

REFERENCES:
4. Census of India. (2011): Final population totals series 1:
5. India Registrar General and Census Commissioner India.

Dr. Bhalerao Ashok Shahaji
Head Department of Geography, Chistiya college of Arts, Khultabad, Dist.Aurangabad.