Research Paper   **Geography**

Pattern And Trend of Overall Sex Ratio And Sex Ratio In 0-6 Age Group – A Geographical Study of Khandesh Region of Maharashtra.

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ABSTRACT

Present research paper is devoted to find out any error between overall sex ratio and sex ratio in 0-6 age group of population in study area. For social well being it is essential to know future pattern of sex ratio in 0-6 age group. Correlation between overall sex ratio and sex ratio in 0-6 age group population is amounted r = + 0.859. Simple regression equation of data on overall sex ratio and sex ratio in 0-6 age group has 511.0 + 0.492 x. and R2 is o.754. As per census 2011, Jalgaon district has overall sex ratio was 925 and sex ratio in 0-6 age group figured 842. Dhule had population of 2,050,862 out of which males were 1,054,031 and females are 996,831. And overall sex ratio was 946 and sex ratio in the age group of 0-6 age amounted 898. While Nandurbar district had population of 1,648,295 out of which males were 833,170 and females are 815,125. Under the age group of 0-6 is amounted 240222. Overall sex ratio is 978 and sex ratio in 0-6 age group 944.

KEYWORDS

Introduction

The sex ratio is the ratio of females to per thousand males in a population. In most sexually reproducing species, the ratio tends to be close to 1:1. The human sex ratio is of particular interest to anthropologists and demographers. In human societies, however, sex ratios at birth may be considerably skewed by factors such as the age of mother at birth and by **sex-selective abortion** and infanticide [1]. Exposure to pesticides and other environmental contaminants may be a significant contributing factor as well [2]. As of 2014, the global sex ratio at birth is estimated at 107 boys to 100 girls (1000 boys per 934 girls. Fisher's principle is an **evolutionary** model that explains why the **sex ratio** of most **species** which produce **offspring** through **sexual reproduction** is approximately 1:1 between **males** and **females**. It was famously outlined by **Ronald Fisher** in his 1930 book **The Genetical Theory of Natural Selection** [3]. As per census of India 2011, Jalgaon has a population of 4229917 out of which males were 2,197,365 and females are 2,032,552. Under the age group of 0-6 is amounted 532005. Jalgaon District population is constituted 3.76 percent of total Maharashtra population. Dhule had population of 2,050,862 of which males were 1,054,031 and females are 996,831. Dhule District population constituted 1.83 percent to total population of Maharashtra state. Overall sex ratio is 946 and se ratio in 0-6 age group 898. As per census of India 2011, Nandurbar had population of 1,648,295 of which males were 833,170 and females are 815,125. Nandurbar District has constituted 1.47 percent to total population of Maharashtra. Under the age group of 0-6 is amounted 240222. Overall sex ratio is 978 and sex ratio in 0-6 age group 944.

Study Area

Khandesh was the region demarcated as a boundary after which Dakkhan a.k.a. **Deccan** started. Originally The Khandesh state was founded and ruled by the **Faruqi dynasty** with the capital at **Burhanpur** which is now in Madhya Pradesh. Khandesh State had covered the area of the today's **Jalgaon**, **Dhule**, **Nandurbar** districts of Maharashtra state and **Burhanpur** district of Madhya Pradesh state. The terms "Khandesh" and "Deccan" thus connote historical and political affiliations, as well as geographical zones. Khandesh lies on the Northwestern corner of the **Deccan** plateau, in the valley of the **Tapi River**, and is bound to the north by the **Satpura Range**, to the east by the **Vidharbha** region, to the south by the Hills of Ajanta, belonging to the Marathwada region of Maharashtra, and to the west by the northernmost ranges of the **Western Ghats**, and beyond them

the coastal plain of **Gujarat**. Khandesh region has been taken as a study region. Dhule, Nandurbar and Jalgaon districts falls in Khandesh region of Maharashtra state. Data on tahsil level of these districts has been taken for carried out research work. The total geographical area of Dhule district is 8063 sq km and it lies between 20°38 to 21°61 N and 73°50 to 75°11′E. Nandurbar district lies between 21°00 to 22°03 N and 73°31 to 74°32 E. Total geographical area of the district is 5087 Sq km. Jalgaon district lies between 20°01 58 to 22°01 N and 74°31 to 75°56 E. Total geographical area of the district is 11700Sq km. Jalgaon district comprises 15 tahsils. It comes under Nashik revenue division. Study region represents varied topographical features and landscape. The region is a part of Deccan uplands of Maharashtra state, but distinguishing topographic feature of district is that unlike Deccan Plateau. The Mountain and hills ranges in the North and the South marked the different physical landscapes of region. In the central part of the region lies the rich fertile plain of Tapi valley dotted with few hills

Objectives

Following objectives has been prepared for research work to find out result

1} to analysis pattern of overall sex ratio and sex ratio in the age group of 0-6 in study region.
2} to discus on trends of overall sex ratio and sex ratio 0-6 age group in particular at tahsil level.

Database and Methodology

Data on population of male and female people obtained through secondary source namely census of India 2011 and socio-economic review. The data have been summarized and analyzed by using statistical method of Spearman's rank order and cartographic technique such as scatter diagram with regression line applying to understand trend in sex ratio

1 Sex ratio is calculated by

$$Pf/Pm \times 1000$$

2 to find out relation between overall sex ratio and sex ratio of 0-6 age group formula of Spearman's rank order has been used.

$$r = 1 - 6\mathcal{E}d^2/n\,(n^2-1)$$

3} Scatter diagram applying to understand trends between overall sex ratio and sex ratio (0-6)

Hypothesis
On the basis of said objectives in order to analysis of urban-rural and urban-rural male-female literacy designed following hypothesis.
Ho: There is no correlation between overall sex ratio and sex ratio in 0-6 age group
Ho1: There is a correlation between overall sex ratio and sex ratio in 0-6 age group
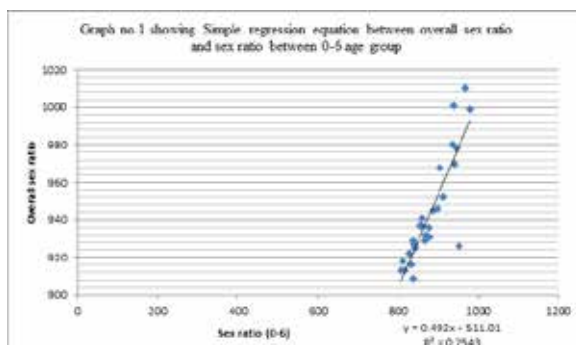
Pattern and tends of overall Sex ratio and sex ratio in 0-6 age group.
A term used in various specialties as a general descriptor for lesions in which large areas of one colour, histologic pattern orradiologic density with variably scalloped borders sharply interface with another colour, pattern or density, fancifully likened to national boundaries or coastlines

Table no 1 showing data on sex ratio as per census of India- 2011.

Sr. No.	Name of Tahsils	Sex Ratio (Overall)	Sex Ratio (0-6 yrs)	Sr. No.	Name of Tahsils	Sex Ratio (0-6 yrs)	Sex Ratio (Overall)
1	Akkalkuwa	926	951	14	Muktainagar	932	869
2	Akrani	999	980	15	Bodvad	929	867
3	Taloda	1001	939	16	Bhusawal	937	855
4	Shahada	980	936	17	Jalgaon	913	807
5	Nandurbar	968	904	18	Erandol	929	838
6	Nawapur	1010	967	19	Dharangaon	918	813
7	Shirpur	952	912	20	Amalner	937	854
8	Shindkheda	941	859	21	Parola	913	817
9	Sakri	970	940	22	Bhadgaon	927	840
10	Dhule	931	879	23	Chalisgaon	909	836
11	Chopda	936	877	24	Pachora	922	828
12	Yawal	945	888	25	Jamner	916	832
13	Raver	937	861				

(Compiled by Researcher)

Graph no 1 showing Simple regression equation between overall sex ratio and sex ratio between 0-5 age group

A trend simply reflects what seems to be going around at any given time. As per values depicted and summarized in table no 1. Reveals trend in overall Sex ratio and sex ratio in 0-6 age group. Correlation between overall sex ratio and sex ratio in 0-6 group is amounted r = + 0.859 and the critical value for the Spearman Rho rank correlation coefficient test is + 0.400 at 0.05 level. Observed value of correlation coefficient {+0.859} is greater than critical value {+0.400} it falls in the rejection region. Hence reject null hypothesis and accept alternative hypothesis. It means that there is a correlation between overall sex ratio and sex ratio in 0-6 age group in all tahsils in Khandesh region of Maharashtra state. Coefficients of the regression line is 511.0 (intercept) and 0.492 (slope) so that the line has the equation 511.0 + 0.492 x. When the number of priors' increases by one, sentence length increases by 0.492. Thus, on average increase by 1000 persons, it has increases 511.0 + 0.492 x 1000 = 1003. That means trends of overall Sex ratio and sex ratio in 0-6 age group would be 1003 in the tahsils of Khandesh region of Maharashtra state.

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