International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2020): 7.803

Spatio-Temporal Analysis of Child Sex Ratio (CSR) in Maharashtra

Dr. Prakash N. Salve

Associate Professor, Department of Geography, Maharaja Jivajirao Shinde Mahavidyalaya, Shrigonda Dist. Ahmednagar (MH)
pnsalve[at]gmail.com

Abstract: ***The preen study investigated the spatio-temporal distribution of CSR in Maharashtra state. The study reveals that all 35 districts have recorded a negative sex ratio which is an alarming bell for the state. The child sex ratio (CSR) of Maharashtra went down from 946 females per 1000 males in 1991 to 894 females per 1000 males in 2011. About 22 districts were recorded the below national average (914 female per 1000 males) child sex ratio. The difference in CSR from 1991 to 2011 was recorded highly negative in the districts of Bid-132, Ahmednagar-97, Kolhapur-86, Jalgaon-83, Jalna-81, Osmanabad-80, Aurangabad-75, Parbhani-72, Hingoli-71, Nashik-64, Pune-60, Dhule-59, Latur-58, Sangli-57, Nanded and Solapur-52. The child sex ratio in these 22 districts of the state is worse. Gender discrimination, female infanticide, and son preference are the important factor responsible for the low CSR, hence it is an urgent need to take action to enhance the CSR in these districts.***

Keywords: Child Sex Ratio, Spatio-temporal change, Gender discrimination, Son preference

1. Introduction

Population composition denotes population structure which includes various elements of the population such as sex composition, age composition, occupational composition, ethnic and religious composition are most important. Among these elements, the study of sex composition is significant for human geographers. The sex ratio may be expressed as the number of females per thousand males which is the basic demographic determinant of population change. Sex Ratio are important for various types of planning and the analysis of other demographic characteristics, such as mortality, fertility, marital status, economic characteristics, etc. The general sex ratio at the national level has increased from 933 in 2001 to 940 in 2011, but the child sex ratio (CSR) in India is a worse situation. India has witnessed falls in CSR from 962 in 1981 to 914 in 2011, it further indicates that rural CSR is high as compared to the more than 26 states and UTs. CSR is very worse in the urban area of the county. The traditional excess girl child mortality displays a consistent connection with patriarchal social norms forming a core aspect of regional inequalities. The child sex ratio (0-6 years) is declining steadily during the last five decades and more steeply in northern states of India (Pual and Saha, 2017)

In the early period, the sex ratio has been recorded as high due to high mortality. But at present, female deficits per 1000 males have been found at the regional level. (Sen 1990; Agnihotri 2000; Dasgupta and Bhat 1995; Miller 1981 and 1989), imbalances in sex ratio pointed out by various scholars (Visaria 1971; Natarajan 1972). At, even demographic diversity is high in India (Agnihotri 1995, Dyson and Moor 1983). The Northern and Southern states exhibit considerable differences. In the northern states, high rate of infant, child, and female mortality and fertility as compared to the southern states (Jeffery and Jeffery 1997; Guilmoto and Rajan 2002).

This study attempted to study the spatio-temporal changes in the child sex ratio of Maharashtra using districts a unit during 1991 to 2011 for understanding the status for child sex ratio (CSR) for better policy planning in improving Child Sex Ratio.

Objective

The spatio-temporal analysis of Child SexRatio (CSR) in Maharashtra from 1991 to 2011 for understanding the districts with negative CSR for suggesting future planning to improve the negative CSR.

Database & Methodology

The present study is entirely based on secondary data which is obtained from the Census Handbook of Maharashtra 1991, 2001, and 2011. For the present study, the district has been selected as a basic unit of investigation. The period selected for the present study is during 1991-2011. The Child Sex Ratio (CSR) is computed by using the following formula through MS Excel.

$$Sex\ Raio = \frac{Female\ (0-6\ age\ group)}{Male\ (0-6\ age\ group)} X\ 1000$$

Maps prepared for express decadal spatio-temporal changes in child sex ratioand district delimited into high, medium, and low child sex ratio areas using Arc GIS 10.4software. Lastly, based on findings, suggestions havebeen given to improve the child sex ratio in Maharashtra state.

2. Results and Discussions

In Maharashtra, the child sex ratio (CSR) is in the favor of males. The number of males in the 0-6 age group exceeds those of females. According to the 1991 Census, there were 946 females per 1000 males which declined upto 894 femalesper 1000 males. It reveals that from1991 CSR has continuously declined.

Licensed Under Creative Commons Attribution CC BY

Table: Spatio-temporal distribution of Child Sex Ratio in Maharashtra

Sr. No.	District	Child Sex Ratio 0-6 year			Difference 1991-2011
		1991	2001	2011	
1	Ahmednagar	949	884	852	-97
2	Akola	929	933	912	-17
3	Amaravati	950	941	935	-15
4	Aurangabad	933	890	858	-75
5	Beed	939	894	807	-132
6	Bhandara	964	956	950	-14
7	Buldhana	945	908	855	-90
8	Chandrapur	965	939	953	-12
9	Dhule	947	907	898	-49
10	Gadchiroli	980	966	961	-19
11	Gondia	978	958	956	-22
12	Hingoli	953	927	882	-71
13	Jalgaon	925	880	842	-83
14	Jalna	951	903	870	-81
15	Kolhapur	931	839	863	-68
16	Latur	947	918	889	-58
17	Mumbai	942	922	914	-28
18	Mumbai (Sub)	930	923	913	-17
19	Nagpur	951	942	931	-20
20	Nanded	960	929	910	-50
21	Nandurbar	977	961	944	-33
22	Nashik	954	920	890	-64
23	Osmanabad	947	894	867	-80
24	Parbhani	956	923	884	-72
25	Pune	943	902	883	-60
26	Raigad	961	939	935	-26
27	Ratnagiri	961	952	936	-25
28	Sangli	924	851	867	-57
29	Satara	941	878	895	-46
30	Sindhudurg	963	944	922	-41
31	Solapur	935	895	883	-52
32	Thane	952	931	924	-28
33	Wardha	952	928	919	-33
34	Washim	941	918	863	-78
35	Yavatmal	961	933	922	-39
Maharashtra		**946**	**913**	**894**	-52

(Source: Computed by Researcher)

The table reveals that the finding of the bottom districts having the lowest sex ratio below 900, Bid has the lowest sex ratio at 807 followed by Jalgaon 842, Ahmednagar 852, Buldhana 855, Kolhapur 883, Jalana 870, Aurangabad 858, Osmanabad 867, Washim 863, Sangali 867, Parbhani 884, Hingoli 882, Latur 889 and Solapur 882, Pune 883, Mumbai 914, Dhule 898, Satara 895, and Akola 900, find the bottom districts in State during 2011 census.

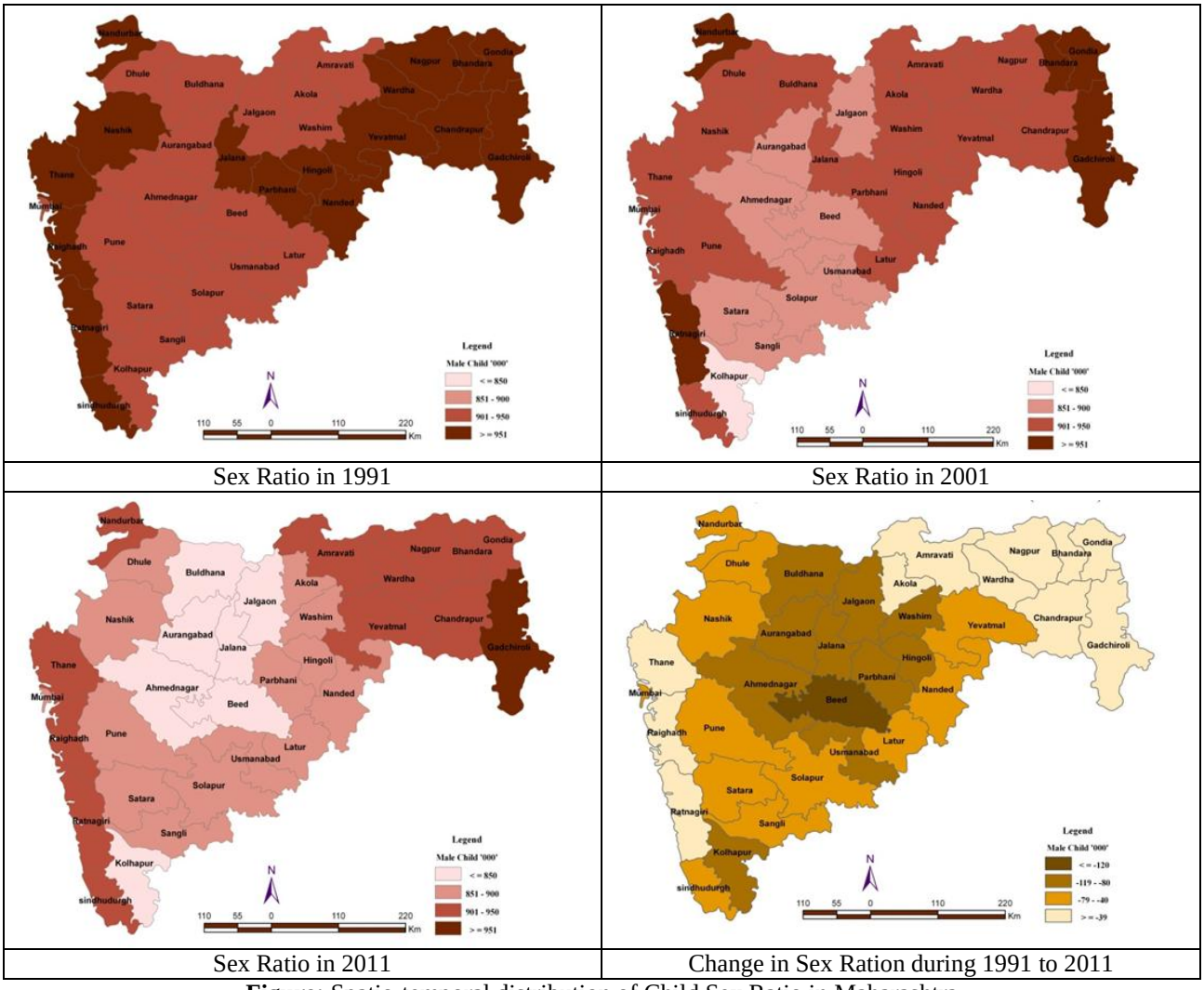

Figure: Spatio-temporal distribution of Child Sex Ratio in Maharashtra

Licensed Under Creative Commons Attribution CC BY

Table: Child Sex Ratio in Maharashtra State

Years	Below 850	851 to 900	901 to 950	Above 951
1991	--	---	Dhule, Buldhana, Amrawati, Akola, Jalgaon, Washim, Aurangabad, Ahmednagar, Bid, Lautr, Usamanabad, Solapur, Sangali, Kolhapur, Satara, Pune, Mumbai,	Nandurbar, Nashik, Thane, Raighadh, Ratnagiri, Sindudurgh, JalanaParbhani, HingoliNanded, Yevatmal, Wardha, Nagpur, Bhandara, Gondiya, Chandrapur, Gadchiroli,
2001	Kolhapur	Jalgaon, Aurangabad, Ahmednagar, Bid, Usamanabad, Solapur, Sangali, Satara,	Dhule, Buldhana, Nashik, Thane, Mumbai, Raighadh, Pune, Sindudurgh, JalanaParbhani, Lautr, Hingoli, Washim, Akola, Nanded, Yevatmal, Wardha, Amrawati, Nagpur, Chandrapur,	Nandurbar, Ratnagiri, Bhandara, Gondiya, Gadchiroli,
2011	Buldhana Jalgaon Aurangabad JalanaAhmednagar, Bid, Kolhapur,	Dhule, Nashik, Solapur, Pune, Sangali, Satara, Mumbai, Usamanabad, Lautr, Parbhani, Hingoli, Washim, Akola, Nanded,	Nandurbar, Ratnagiri, Thane, Raighadh, Sindudurgh, Amrawati, Yevatmal, Wardha, Nagpur, Bhandara, Gondiya, Chandrapur,	Gadchiroli,

(Source: Computed by Researcher)

The followings are the top ten districts of Maharashtra in child sex ratio during 1991 to 2011 Gadchiroli, Chandrapur, Gondia, Ratnagiri, Bhandara, Nandurbar, Amravati, Nagpur, Raigadh, and Thane. In 1991 Gadchiroli, Gondia, and Nandurbar's child sex ratio was between 977 to 980. Chandrapur, Ratnagiri, Bhandara, Amravati, Nagpur, Raigadh, and Thane were between 950 to 965. In 2001 the child sex ratio has been declined in all ten districts Gadchiroli's child sex ratio was 966, Chandrapur 939, Gondia 958, Ratnagiri 952, Bhandara 956, Nandurbar 961, Amravati 941, Nagapur 942, Raigadh 939, and Thane dipped up to 931.

Bid, Jalgaon, Ahmednagar, Buldhana, Kolhapur, Jalana, Aurangabad, Usmanabad, Washim, and Sangali are the bottom ten districts in child sex ratio during 1991 to 2011. In 1991 all districts' child sex ratio was between 924 to 951. In 2001 the sex ratio of the districts i. e. Kolhapur and Sangali decreased very sharply. It declined up to 839 and 851. Other districts' sex ratio was between 884 to 918. The sex ratio of Bid drastically declined in 2011. It was 939 in 1991, 894 in 2001 and it became 801 in 2011. All other districts' sex ratio was between 830 to 850. Compare to1991, the sex ratio has been drastically declined in 2011.

The difference in sex ratiofrom 1991 to2011 are negative in the districts of Bid-132, Ahmednagar-97, Kolhapur-86, Jalgaon-83, Jalna-81, Osmanabad-80, Aurangabad-75, Parbhani-72, Hingoli-71, Nashik-64, Pune-60, Dhule-59, Latur-58, Sangli-57, Nanded and Solapur-52, Satara-46, Shindhudurg-41, Yavatmal-39Nadurbar-33, Wardha-33, Mumbai City-28, Raigarh-26, Gondiya-22, Ratnagiri-21, Gadchiroli-19, Chandrapur and Akola-17, Mumbai suburban-17, Amravati-15, and Nagpur, Bhandara, Buldhana-14, during 1991 to 2011 census.

3. Conclusion

The present study sex ratio below 0-6 age group of the Maharashtra statewas investigated. The study indicates that all districts have recorded a negative sex ratio. The child sex ratio (CSR) of Maharashtra was 946 females per 1000 males in 1991 fallingupto894 females per 1000 males in 2011, almost 52 points negative. About 22 districts were recorded highly negative CSR which districts are Bid-132, Ahmednagar-97, Kolhapur-86, Jalgaon-83, Jalna-81, Osmanabad-80, Aurangabad-75, Parbhani-72, Hingoli-71, Nashik-64, Pune-60, Dhule-59, Latur-58, Sangli-57, Nanded and Solapur-52. Gender discrimination and son preferenceare the important factors responsible for the low CSR. It is an alarming bell for Maharashtra, hence it is an urgent need to take action to enhance the CSR in these districts.

References

[1] Agnihotri, S. B. (2000). Sex Ratio Patterns in the Indian Population: A Fresh Exploration, SagePublications, New Delhi
[2] Asha Bhende and Tara Kanitkar (2011): Population Studies, *Himalaya publishing house, Bombay, p*p.139-154.
[3] Barakade, A. J. (2012): Declining Sex Ratio: An analysis with special reference to Maharashtra state. *Geoscience Research*, Vol.3 (1), pp.92-95.
[4] Chandana, R. C. (2006): Population Geography, *Kalyani Publication*, Allahabad.
[5] Coale, A. (1991), Excess female mortality and the balance of sexes in the population: An
[6] Estimated number of missing females, Population and Development Review, 17 (3), pp.517-23.
[7] Dasgupta, M. and Bhat, P. N. M (1995) Intensified gender bias in India: aConsequence of fertility decline, working paper No: 2, Centre for population anddevelopment studies, Harvard University
[8] Hassan, Mohammad (2009): Population Geography, *Rawat Publication*, Jaipur. pp.107-150.
[9] International Institute for Population Sciences (IIPS). (2007). *National Family Health Survey (NFHS-3).*2005-06. Mumbai. Maharashtra
[10] Lakshmana, C. M. (2008): The Decadal Variations of Child Population Growth in Karnataka State, *TheDeccan Geographer*. Vol.46 (2). Pp.11-23.
[11] Maurya, S. D. (2014): Population Geography, *Pravalika Publications*, Allahabad.

Licensed Under Creative Commons Attribution CC BY

[12] Miller, B. D. (1989): Changing Patterns of Juvenile Sex Ratios in Rural India, 1961 to 1971. *Economic and Political Weekly*, pp.1229-1236.
[13] Salve, P. N. and Aher A. B. (2012): Declining Female sex ratio in Ahmednagar district An Empirical Investigation, National level Seminar Proceeding Pp 4,
[14] Salve, P. N., Bansode, S. K., Chavhan, G. K. (2021): Violence against Girls and Women due to Socio-Economic Factors: Ahmednagar District. Journal of Research and Development, A Multidisciplinary International Reviewed Journal, Volume-11, Issue-15, Pp 156-158.
[15] Trewartha, G. T. (1969): A Geography of Population: World Pattern. John Wiley & Sons Inc. New York.

Licensed Under Creative Commons Attribution CC BY