The Issue of Gender Ratio in India: An analysis

Sumesh Kumar[1,*], Komal Sharma[2]

[1]Assistant Professor, [2]Ex-Assistant, [1]IIHMR, Delhi, [2]NIILM University

***Corresponding Author:**
Email: Sumeshkumar3112@gmail.com

Abstract

Summary: The status of women is a vital indicator of the development of any society. Developed societies do not discriminate the citizens based on the gender but the case is opposite in the less developed societies. In India, gender discrimination is a major problem. People prefer male child and indulge in female feticide and infanticide. The present paper highlights some facts related to gender ratio in our country. The paper takes thirty-two Indian states and Union Territories (UTs) to study the relationship between per-capita income and gender ratio. Surprisingly, the states and UTs with high per-capita income have lower gender ratio than the national average and vice-versa. The paper also tries to find out reasons for the negative relation. The five-dimensional approach has been suggested to tackle the problem and emphasis has been given that all the stakeholders should decide their roles and should work together to overcome the social evil.

Keywords: Gender Ratio, Social, Per-Capita Income, Discrimination, Female Child.

Introduction

Gender equality is a human right that refers to the equal social, economic, and political rights of both men and women. Women are entitled to live with dignity and with freedom from fear (UNFPA). It is a key determinant of any civil society. But unfortunately a major part of this world is struggling on this part. Like any other developing country, India has also been witnessing the different aspects of gender biasness since ages.

The status of women was high during the Vedic period as their presence was compulsory in many rituals. But later, the importance of male members increased in the Indian society and the social status of the women deteriorated. Still women are struggling for the equal rights of men in almost all the dimensions of life that shows the male dominated society and discrimination against women. India ranks 130 out of 183 countries in the Gender Inequality Index 2015. India ranks lower than its neighboring countries such as China (40), Sri Lanka (72), Myanmar (85), Bhutan (97), Nepal (108), Bangladesh (111) and Pakistan (121) (UNDP). The Government of India started several national level programs to re-ensure equivalent status of women in the society, but unfortunately all those programs could not bring the expected change in the social and economic condition of women in the country. This problem aggravated with the passage of time and has become the key reason for the skewed Indian demographic structure as there are only 943 females for 1000 males in the country (census 2011). The present paper analyses the gender ratio of Indian states/ Union Territories (UTs) and suggests measures to improve the ratio.

Literature review

Lonavath (2014) compares the different districts of Andhra Pradesh based on sex ratio during the time 1961 to 2011. The main objectives of the study are to study the urban sex ratio region wise and to study the variation in sex ratio with variation in the places. He explains in his paper that the sex ratio in many parts of Andhra Pradesh is due to the migration of the male members of the family because of job. He explains that the spread of medical facilities is another reason that the people are easily deciding the sex of the child.

Rai, Singh and Parasuraman (2013) clarify that the twisted sex ratio is because of lower female births in comparison to male. Also the study tries to realize the sex biasness in terms of sex ratio at birth and sex differential in mortality during 2001-2011, in India and its major states. The outcome of the study reveals, at the national level, the twisted child sex ratio can be due to distortion in sex ratio at birth by sixty-seven percent and in high female child mortality by about thirty-three percent in the year 2011. On the other hand, it was forty percent in case of sex ratio at birth and was sixty percent in case of female child mortality in the year 2001.

Bhattacharya and Heriot (2012) in their paper reveal the inequality and deficiencies a section of the society, bears based on gender, in the three big nations i.e. Russia, India, and China. The paper does comparison of the experiences of these countries related to gender inequalities and through light on the policy issues. The study reveals that in India, in some states of northeast, female children generally survive in a better way than the other parts of India.

Wei and Zhang (2011) focus on the serious problem of excessive number of males in comparison of females in pre-wedding age group in China. This imbalance can enhance the crime in the society. As per the study, this gender imbalance can trigger the

economic growth with more entrepreneurship. The new firms are coming out form the regions of high sex ratio disparity. The study predicts higher gender ratio imbalance soon in China.

Gaye, Klugman, Kovacevic, Twigg and Zambrano (2010) explain that the gender inequality is the major hindering factor for human development. Even after much attention has been paid to the issue, girls/women could not get gender equality. The study explains different methods to measure gender inequality and gives amended index that has been shown in the 2010 Human Development Report. The new index has advancement over the existing index as it includes some important variables in the index related to the socio economic status of the women.

Rutherford and Roy (2003) measure the socio-economic and demographic factors responsible for the sex selective abortions in India. For the data requirement, the study is based on NFHS survey. The study reveals that the sex selection is based on the factors such as mothers' number of living sons, urban/rural residence, mother's education, religion, caste/tribe, mother's media exposure, household standard of living, and mother's age at child birth.

As shown above there are number of studies on gender ratio, gender inequality and gender biasness in India and abroad. Some studies explain the measurement of the gender ratio, some reveals the causes of adverse sex ratio and some explain the impact of it. The present paper compares all the Indian states and UTs based on their gender ratio of 2011 census and the per-capita income

Objectives of the study

1. To compare the Indian states and UTs based on per capita income and gender ratio.
2. To see the relationship between per-capita income and gender ratio of Indian states and UTs.
3. To find out causes of identified relationship between gender-ratio and per capita income.

Methodology

The study is based on the secondary data collected from the census of India (2011), Press Information Bureau of India etc. The population under study has been categorized into two groups. Group-1 includes the Indian states and UTs with high per-capita income while Group-2 includes the states and UTs with low per capita income in comparison of average per-capita income of the country. Descriptive statistics has been used to show the difference in the mean value of gender ratio in the states and UTs. Further, correlation analysis has been used to show the relationship between gender ratio and per-capita income.

Analysis

The paper takes into consideration the gender ratio of 32 Indian states/UTs and per-capita income and tries to find out relationship between them. Both the variables have been plotted in the scatter diagram to elucidate the relationship.

It has been observed form the figure below that the relationship is negative.

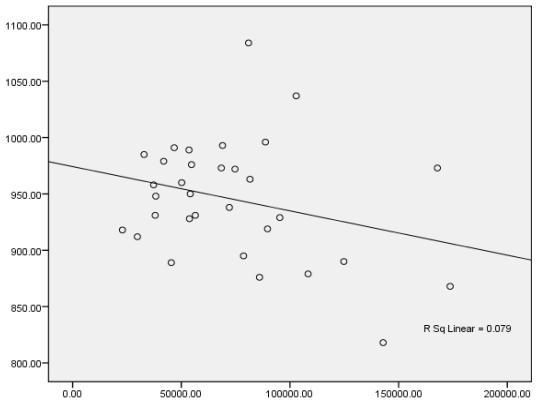


Fig. 1: Relationship of Gender Ratio and Per-capita Income in Indian States and UTs

The outliers

During analysis, three outliers have been identified and removed. These outliers are Kerala, Pondicherry and Tamil Nadu. All these three states show different trend, and have high per-capita income and gender ratio than the national average as the literacy rate in these states is much above the country's literacy rate of 74.04 percent. Kerala has the highest literacy rate in India (94 percent), Pondicherry has (85.85 percent) and Tamil Nadu has (81 percent) as per 2011 census.

After removing outliers, the remaining 29 States/UTs have been divided in two groups. Group-1 includes 14 Indian States and UTs with high per-capita income while Group-2 includes 15 States and UTs with low per-capita income than the national average (2011). The division of States/UTs in two groups has been shown in the following table:

Table 1: Per-Capita Income and Gender Ratio of Indian States and UTs

Sl. No.	State	Gender-Ratio	Per Capita Income Rs. (2011)
States with income level higher than the national average (group-1)			
1	Delhi	868	173686
2	Goa	973	167838
3	Chandigarh	818	142869
4	Sikkim	890	124791

5	Haryana	879	108345
6	Maharashtra	929	95339
7	Gujarat	919	89668
8	Andaman and Nicobar Islands	876	85984
9	Uttarakhand	963	81595
10	Punjab	895	78633
11	Himachal Pradesh	972	74694
12	Arunachal Pradesh	938	72091
13	Andhra Pradesh	993	68970
14	Karnataka	973	68423
States with income level lower than the national average (group-2)			
15	Nagaland	931	56461
16	Mizoram	976	54689
17	West Bengal	950	54125
18	Rajasthan	928	53735
19	Meghalaya	989	53542
20	Tripura	960	50175
21	Chhattisgarh	991	46743
22	Jammu and Kashmir	889	45380
23	Orissa	979	41896
24	Jharkhand	948	38258
25	Madhya Pradesh	931	37994
26	Assam	958	37250
27	Manipur	985	32865
28	Uttar Pradesh	912	29785
29	Bihar	918	22890

Source: Census of India and Press Information Bureau, Government of India.

Based on the information given in the Table-1, descriptive analysis has been performed on group-1 and group-2 and the results have been shown in the Table-2. It has been observed that there is difference in the average gender ratios of both the groups. In Group-1 (high income group) the average gender ratio is 920.43 which is lower than the national average of 943. In Group- 2 (Low income group) the average gender ratio is 949.67 which is higher than the national average.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Group 1	14	818.00	993.00	920.43	51.256
Group 2	15	889.00	991.00	949.67	31.059
Valid N (list wise)	14				

After removing outliers, the following Fig: 2 re-establish the relationship between per-capita income and gender ratio of 29 Indian states and UTs.

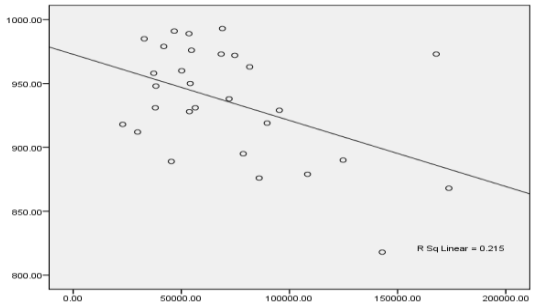


Fig. 2: Relationship of Gender Ratio and Per-capita Income in Indian States and UTs (After Outliers)

The above figure shows that after removing outliers, the negative relationship between two variables has become more prominent. Further, to consolidate the results, Pearson's correlation has been performed on the values of per-capita income and gender ratio. The results have been shown in the Table-3.

Table 3: Correlation

		Gender Ratio	Per-capita Income
Gender Ratio	Pearson Correlation	1	-.464*
	Sig. (2-tailed)		.011
	N	29	29
Per-capita Income	Pearson Correlation	-.464*	1
	Sig. (2-tailed)	.011	
	N	29	29

*. Correlation is significant at the 0.05 level (2-tailed). Source: Calculated

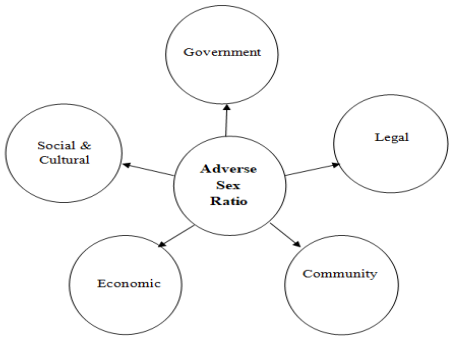
The above table shows negative relationship between both the variables under study with value of correlation -0.464. States that have comparatively high per-capita income show more adverse gender ratio than states with low per capita income. Now the question arises here what the reasons of this negative relationship are?

Reasons of negative correlation

1. More accessibility to the labs and medical facilities with increase in income. Ultrasound tests are being widely used for sex selection, with sex selection being more evident for the wealthiest women than for women in the other wealth quintiles (NFHS-3).
2. Female child is considered as liability. Sex ratios of all last births and last births of sterilized women show clearly that couples typically stop having children once they have the desired number of sons (NFHS-3).
3. The social and cultural factors also play inevitable role for the gender inequality. Traditionally, parents are not supposed to live with daughters in their old age particularly when daughters are married. Huge expenditure on marriages, dowry system, transferring business and wealth, perpetuating the family name, and performing last rituals are some other socio-cultural factors that are responsible for the preference of male child in the country like India.
4. The increasing crime against women and low social status in the society because of patriarchy system also lead to the male child preference. Under this system, parents potentially reap more of the returns to investment in son's health and education (Jayachandran 2014). This is the reason that child sex ratio in India that was 927 (census 2001) declined to 919 (census 2011).
5. Migration of male members form the relatively less per-capita income to the more per-capita income may be another reason of skewed gender ratio. Most of the migration that takes place from rural has a character of men coming to cities living families behind. Perhaps this kind of movement makes the cities having low sex ratio (Lonavath, 2014).

Suggestions to improve gender ratio

There should be multidimensional strategy to tackle the problem of gender ratio in India. The figure below shows five-dimensional approach to improve the adverse gender ratio.



1. **Government:** Government is a major contributor in tackling the problem in the country. Government initiated the policies to raise the status of the girl child in the family and to prevent female feticide and infanticide. But mere launching these schemes and policies cannot do wonders. There is dire need to popularize these schemes and incentives should be considerable. The coverage of these schemes should be increased so that maximum people can get the benefit.
2. **Legal:** Though number of acts have been passed for the crime against women and to end social evils against women but they are neither able to control the crimes nor fully end the social malevolence. The graph of crime against women is showing regular increasing trend. Dowry Prohibition Act, 1961, The Protection of Women Against Domestic Violence Act, 2005, The Prohibition of Child Marriage Act, 2006, Protection of Children from Sexual Offences Act, 2012 etc. could not come up to the expectations. So the reasons of their less success should be find out and loopholes should be strictly covered. Amendments in these acts can also be made if required.
3. **Community:** The awareness campaign for the declining gender ratio can only be successful when it will be initiated by the local communities at the village and block level. The anganwadi workers and Accredited Social Health Activists (ASHA)

workers can really make the difference. The awareness camps should be organized at Primary Health Centres (PHCs) and Community Health Centres (CHCs) so that maximum people can be covered under the campaign. Special attention should be given to the areas where the gender ratio is enormously less.

4. **Economic:** The sex ratio of children attending school is 889 girls per 1000 boys (NFHS-3). It is important that the women should be economically sound, and education can play important role. An educated girl can share the financial burden of the family with her father and later with her husband. In this way she will no longer be considered as financial liability. Free and compulsory education should be provided to female children so that they can support themselves during exigency. Also it will remove the attitude that 'investing in girls is unnecessary' (Report, National Institute of Public Cooperation and Child Development, 2008). The Government should ensure proper implementation of equal wages for same work in men and women in all the sectors.
5. **Social and cultural:** About two in five currently married women age 15-49 have experienced spousal violence in their current marriage, and among women who have ever experienced such violence, more than two in three have experienced violence in the past year (NFHS-3). This shows pitiable condition of Indian women in the society. Women should be considered equal to the male members of the society and this is possible by empowering women in terms of their rights in all respects. Women should also be socialized from early childhood to consider themselves equal to men. They should be encouraged to assume all those responsibilities, which are normally considered to belong to the male domain (Report, National Institute of Public Cooperation and Child Development, 2008). Women should be involved in the decision-making of the family issues as well as in the social issues, that will increase their position in the society and their self-confidence will boost up.

Conclusion

There is no space for any kind of discrimination in the modern society. Skewed gender ratio in favor of male child is an indicator of underdevelopment. Unfortunately, Indian society is suffering with discriminating behavior with women right from the childhood or even when they are in the womb in the form of female feticide. When they grow up there is discrimination in providing female child proper medical facilities that results more mortality rate in females as compared to males in 0-6 years of age. The problem is more severe in the states with high per-capita income. This is because the male child is preferable to female child because of their financial, social, and cultural advantage. The Government has taken many steps to make people aware about this evil and many programs has been started as a part of campaign against female feticide and infanticide to improve the gender ratio in the country. But all the Government efforts could not bring much change. There should be multi-level efforts to curb this problem to get better results. The present paper gives five-dimensional approach to fight against the distorted gender ratio. All the stakeholders should identify their role and should join the hands to win the battle against gender discrimination and determination.

References

1. Bhattacharya, C.P. (2012). Gender Inequality and the Sex Ratio in Three Emerging Economies. Heriot-Watt University, Department of Economics, Working Paper No.2012-01.
2. Gye, Amie, Klugman, Jeni, Kovacevic, Milorad, Twigg, Sarah and Zambrano, Eduardo (2010). Measuring Key Disparities in Human Development: The Gender Inequality Index. United Nations Development Program Human Development Reports, Research Paper 2010/46.
3. Jayachandran, S. (2015). The Roots of Gender Inequality in Developing Countries. Annual Review of Economics, Vol. 7, DOI: 10.1146/annurev-economics-080614-115404.
4. Kishor, Sunita and Gupta, Kamla (2009). Gender Equality and Women's Empowerment in India. National Family Health Survey (NFHS-3), India, 205-06. Mumbai: International Institute for Population Sciences; Calverton' Maryland, USA: ICF Macro.
5. Lonavath, K.A. (2014). Urban Sex Ratio: A Study on Regional Wise Towns in Erstwhile Andhra Pradesh, India. Global Journal for Research Analysis, Vol.3(7),ISSN No.2277-8160.
6. National Institute of Public Cooperation and Child Development (2008). Socio-cultural Study of the Declining Sex Ratio in Delhi and Haryana (Rep.). Printed at Power Printers, 2/8-A, Darya Ganj, New Delhi-2.
7. Rai, K.R, Singh, P.K., Parasuraman, S. (2013). Declining Sex Ratio of the Child Population in India: A Decomposition Analysis. Presented at the XXVII IUSSP International Population Conference, Busan, Republic of Korea, August 26-31.
8. Raju, E. (2014). Gender Discrimination in India. IOSR Journal of Economics and Finance, Vol. 2(5), e-ISSN: 2321-5933, p-ISSN: 2321-5925,PP55-65.
9. Retherford, D. Robert and Roy T.K. (2003). Factors Affecting Sex Selective Abortions in India 17 Major States. National Family Health Survey (NFHS-2), International Institute of Population Sciences, Mumbai,ISSN:1026-4736.
10. UNFPA (2015).Annual Report 2015.
11. Wei, Shang-Jin and Zhang, Xiaobo (2011). Sex Ratios, Entrepreneurship, and Economic Growth in the People's Republic of China. NBER Working Paper No. 16800, Retrieved from http://www.nber.org/papers/w16800.