



IS THERE SON PREFERENCE IN INDIA? - AN ANALYSIS BASED ON SEX RATIO AT BIRTH AND ORDER OF BIRTH

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ABSTRACT Based on NFHS data, the paper observes that females are significantly under-represented among the births in India. NFHS reports provide strong evidence of decline in sex ratios of the population aged 0-6 and in the Sex Ratio at Birth for births in the five years preceding the survey. Against the normal expectation that the sex of the first child is less likely to be controlled, NFHS provides strong evidence that, the Sex Ratio at Birth for first-born children has been below normal in all its surveys and has been declining steadily, except for NFHS-4, where it registered a marginal improvement. Also, the Sex Ratio at Birth for births at order two is substantially lower than at order one and at any other birth order, revealing strong son preference. The Sex Ratio at Birth for births at order three is also lower than the Sex Ratio at Birth for all births except births of order two, suggesting that substantial proportions of couples with two or three children stop having more children only if their last birth is a boy. Modern science and technology have been widely misused to determine the sex of unborn children and this has ended up in terminating unwanted and burdensome pregnancies. Myopia of individuals and authorities culminated in 'gendercide'. Prosperity effect, breadwinner desire, old age security and religious rights and powers, and a host of other factors ended up in the masculinization of India's population.

KEYWORDS : Child SexRatio, Sex Ratio at Birth, Gendercide, Masculinization

INTRODUCTION

A distinctive dimension of Asia's recent population dynamics has been its unexpected "masculinization" – the increasing proportion of males in its population (Guilmoto, 2007). Asia has long had the highest proportion of males in the world. Among the ten most populated countries of the world, all the Asian countries have low sex ratios except Indonesia and Japan. In contrast to this, the gender composition of most of the developed European countries shows a favourable trend. A close look at the sex ratios across globe helps one to understand that, the sheer weight of the population of the two most populated countries, viz, China and India with low sex ratios- 926 and 940 respectively, contributes to the preponderance of males over females in world. 'Missing Women'- a concept developed by Amartya Sen, refers to the observation that in parts of the developing world, notably in India and China, the ratio of women to men is suspiciously low. Sen estimated that more than 100 million women were 'missing', presumably from inequality and neglect leading to excess female mortality (Anderson and Ray, 2012). The experience of Asia reveals that sex ratios are not socially sustainable over a prolonged period and in the wake of fertility decline, the populations of many countries in Asia have taken advantage of the newly available medical technology to avoid giving birth to daughters.

National Family Health Survey – 3 in its national report observed that females in India are not only handicapped due to under-representation among births, but are also over-represented among the births that die, in terms of infant and child mortality. Changes in sex composition largely reflect the underlying socio-economic and cultural patterns of a society in different ways. Declining Child Sex Ratio is a robust demographic indicator as well as an indicator of prevalent gender biases and inequalities that affect the girl child's very survival, health, nutrition and even, birth. It also reflects the extent of violence against girls within a society. Changes in sex ratio is mainly the outcome of the interplay of sex differentials in mortality, sex selective migration, sex ratio at birth and at times the sex differentials in population enumeration (Census, 2001). This paper analyzes the gender discrimination in India's child population by examining the trend in child sex ratio and sex ratio at birth.

Overall Sex Ratio in India

Sex ratio in India had always remained unfavorable to females over the years. Barring few years, sex ratio in India has shown a long term declining trend, except in 2001 and 2011, where it registered a marginal increase. The sex ratio in India during 2001 and 2011 has been estimated as 933 and 940 as against the world average of 986 and 984 females per 1000 males (Census, 2011). Overall sex ratio for the country in 2011 presents an encouraging trend across the country encompassing 29 states and union territories, which is a welcome improvement when compared with the previous censuses. As per the 2011 census, the two states that have a sex ratio less than 900 among the major states of India are Haryana (877) and Punjab (893). For

historical reasons, these states had very low sex ratios even from the beginning of twentieth century. From 1951 onwards, sex ratio is significantly higher in the south Indian states, namely -Kerala, Tamil Nadu, Andhra Pradesh and Karnataka. In contrast to this, the northern states, especially the BIMARU states (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh) are lagging behind and are characterized by highly unfavourable sex ratios. For historical reasons, the status of women in Kerala is comparatively better and Kerala is ranked first among the Indian states with respect to sex ratio since 1901. Census 2001 shows that most of the States and Union territories except Kerala have shown a downward slide in sex ratio. The major states that are largely responsible for the decline in the overall sex ratio in India are Bihar, Orissa, Gujarat, Madhya Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh.

Child Sex Ratio in India (0-6 Years)

The most alarming finding of the 2001 Census was the sharp fall in sex ratio of children of 0-6 age group, especially among certain states during the decade 1991-2001. Like the sex composition of the total population, the sex composition by age groups is vital for studying the demographic trend of young population, its future patterns and particularly, the status of the girl child. Rustagi (2010) observes that the odds against the girl child in India's overtly patriarchal society have crossed the danger limit. Though the fall in CSR has been unabated since 1961, the decline received attention in academic circles only in the early 1980's, when the census began to provide the population totals for the age group 0-6 years. But the issue has been widely discussed especially after the 2001 census results became available. Evidence from the census reports since 1981 clearly shows a continuous and significant decline in Child Sex Ratio. As per the census data, Child Sex Ratio was 971, 945, 927 and 914 for the years 1981, 1991, 2001 and 2011 respectively.

'DEMARU' – another acronym is coined in the census operations to take note of the sharp decline in the child sex ratio (0-6 age group) in the face of an increase in the overall sex ratio of the total population in 2001. In the acronym 'DEMARU', 'D' stands for daughters, 'E' for elimination and 'MARU' for killing (Bose, 2001). Punjab, Haryana, Himachal Pradesh and Gujarat are classified as 'DEMARU' states on the basis of a statistical cut off point of 50 points decline in juvenile sex ratio in 2001. The drastic decline in child sex ratio in the states of Punjab (82), Haryana (59), Himachal Pradesh (55) and Gujarat (50) proved to be a matter of worry at the national level. Strong son preference combined with access to sex detection technology and availability of facilities for induced abortions has led to sex selection on a large scale (Kulkarni, 2010). What is even more shocking about 2001 Census results is that this decline in sex ratio of child population is seen in every state of India with the exception of Kerala, Mizoram, Tripura and Sikkim and in the Union Territory of Lakshadweep, where the sex ratio has increased marginally. The decreasing sex ratio in the age group of 0-6 has a cascading effect on population over a period of

time leading to diminishing sex ratio in the country. This imbalance that has set in at this early age group is difficult to be removed and would remain to haunt the population for a long time to come (Census, 2001). The findings of 2011 census reassured the fact that Child Sex Ratio (CSR) is declining across most of the states of India.

CSR declined in 27 States and UT's of India during 2001-2011. Sharp fall in CSR in the range of 22 to 82 points have been reported in Jammu and Kashmir, Dadra and Nagar Haveli, Lakshadweep, Maharashtra, Rajasthan, Manipur, Uttarakhand, Jharkhand, Madhya Pradesh and Nagaland during 2001-2011. Even the North Eastern States like Sikkim and Arunachal Pradesh have shown a declining trend. Kerala too registered a marginal decline of one point in sex ratio of the 0-6 age group in 2011. However, this census gives us a ray of hope to see that, CSR has improved in the 'DEMARU' states of Punjab (48 points), Haryana (11 points) Himachal Pradesh (10 points) and Gujarat (3 points). It also increased in the States and UT's of Tamil Nadu (7 points), Mizoram (7 points), Chandigarh (22 points) and in Andaman and Nicobar islands (9 points). Census data also reveals the fact that CSR declined both in rural and urban areas and the decline in rural India is found to be more than three times as compared to the drop in urban India in 2011, which is a matter of serious concern. Census data further shows higher marginalization of the country's scheduled tribes (ST's) and CSR among the ST's has declined faster (from 973 to 957) than in other categories of population between 2001- 2011. However, CSR is still higher in the ST category than in the general population (Census, 2011).

Sex Ratio at Birth

Decline in CSR and its implications is better understood, if one considers the fact that the CSR is primarily influenced by sex ratio at birth and mortality in the early childhood. One of the key determinants affecting CSR is Sex Ratio at Birth (SRB). Sex Ratio at Birth defined as the number of girls born for every 1000 boys born, is a more accurate and refined indicator of the extent of pre-natal sex selection. Initially, the huge gap observed between the number of men and women represented, to a large extent, the legacy of mortality conditions that had been unfavourable to women during the past century. But it emerged that a new, unexpected phenomenon was also underway: SRB was tilting towards boys, in a way that had never before been recorded in demographic history (Guilmoto, 2007). The CSR in India was too masculine to be explained by excess female mortality during childhood and an imbalance in SRB was an inescapable conclusion (Kulkarni, 2010). This, in turn, meant that sex selective abortions had become quite prevalent across the length and breadth of the country. It is generally accepted that the sharp decline in the CSR is the result of the spread in the availability and misuse of the ultrasound scanning for sex determination and abortion of female fetuses. This 'gendercide' (Warren, 1985) on a large scale resulted in deliberate extermination of persons of a particular sex and, to significant disturbances in the normal sex ratio of population.

SRB could, and has changed because it has become a choice variable within the household, just like the preference for a commodity and it is widely practiced. The micro economic theory of fertility attempts to examine the 'utilities' and 'disutilities' of having children and treats the demand for children just as a utility maximization problem subject to the household constraints of income and cost of rearing and bearing of children. While applying this theory to fertility analysis, children are considered as a special kind of consumption and investment good. In this way, the consumer or individual has to make a trade-off between demand for children and other goods. Keeping other factors constant, the desired number of children can be expected to vary directly with household income, while it is inversely affected by the price (cost) of children (Becker, 1960). To avoid this kind of behavior, prenatal sex determination was banned in India in 1994 on the basis of the provisions of the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994 (PNDT). It was amended in 2003 as Pre-Conception and Pre-Natal Diagnostic Techniques Act (PCPNDT Act, also called Prohibition of Sex Selection Act) to improve the regulation of the technology used in sex selection, particularly ultrasound scanning.

The gap between the observed SRB and the normal sex ratio expected at birth gives an idea of girls missing at birth. The natural sex ratio at birth usually has higher male births. But the advantage of higher SRB for males is neutralized due to higher male infant mortality in the normal population. SRB in India for the period 2007-2009 was 906, while the internationally observed SRB is 952 or more girls born per

1000 boys (UNFPA, 2011). Accordingly, it is estimated that the practice of pre-natal sex selection has resulted in approximately 5.7 lakh girls missed annually in India during the period 2001-2008 and an estimated 4.5 million girls missing over this eight year period. National Family Health Surveys (NFHS) are widely used to study SRB and to assess the magnitude of sex-selective abortions.

Trend data based on NFHS reports provide strong evidence of decline in sex ratios of the population aged 0-6 and in the SRB for births in the five years preceding the survey. Trend in SRB for all children born in the five complete calendar years preceding the four NFHS is shown in Table-1. It is observed that the estimates obtained from NFHS are fairly in conformity with that of the census findings and it re-establishes the fact that there are fewer women in India than men. NFHS data also shows that SRB declines with wealth, suggesting that sex selection of births is more common among wealthier than poor households, which seem to be a contrast to the society's notion that boys are treated as breadwinners and hence, more favoured in a poor family. Ultrasound tests are being widely used for sex selection with sex selection being more evident for the wealthiest women than for the women in the other quintiles (NFHS-3, 2009). This observation has special relevance in our society where girls are not treated at par with boys and respected either inside the house or outside. Earlier it was believed that this approach of doing away with 'unwanted girls' was more appealing to the poor families. It is a paradox to see that a more adverse sex ratio was noted among the better-off and economically prosperous regions, when compared with economically backward communities and regions. This has been christened as 'prosperity effect' (Agnihotri, 2000). Prosperity effect on one end, breadwinner and need for old age security arguments on the other end; along with religious rights and powers, and a host of other interwoven factors ended up in the masculinization of India's population.

Table-1
SRB for All Children Born in Five Complete Years Preceding NFHS-1,2,3 & 4

NFHS-1 (1992-93)	941
NFHS-2 (1998-99)	938
NFHS-3 (2005-06)	914
NFHS-4 (2015-16)	919

Source: National Family Health Surveys

Order of Birth

SRB by birth order is an important analytical tool to determine whether son preference exists in a society or not. If son preference exists, evidence of it can be clearly seen in lower sex ratios at lower order births relative to those at higher order births. Trend in SRB by birth order of all women aged 15-49, based on all children born (all the births in the survey and not just births in recent years) is shown in Table-2. Trend in SRB clearly shows an increase in SRB with higher order births. Normally, it is expected that the sex of the first child is less likely to be controlled. Against this expectation, NFHS data provides evidence that, the SRB for first-born children has been below normal in all its three surveys and has been declining steadily since NFHS-1(NFHS-3). This is also true for births at birth order two. However, in all the three surveys, the SRB for births at order two is substantially lower than at order one and at any other birth order. The SRB for births at order three is also lower than the SRB for all births except births at order two. This suggests that substantial proportions of couples with two or three children stop having more children if their last birth is a boy and this has been happening since the early 1990s at the time of NFHS-1. Stopping after two or three children is in keeping with the mean ideal family size of currently married women in India, which has been between 2 and 3 children in all three surveys.

Table-2
Trend in SRB by birth order of all births to women aged 15-49, India

Birth order	NFHS-1	NFHS-2	NFHS-3
1	901	873	843
2	819	765	762
3	832	819	837
4	921	919	961
5	986	1019	1026
6	1002	1052	1054
7+	1039	1034	1094
Total	935	920	926

Source: National Family Health Survey-3

History shows that man has succeeded in manipulating things for his own whims and fancies. But, if he continues with this myopic outlook of son preference, we may end up in disaster. This 'voiceless exclusion' will be the blackest mark on the well acclaimed Indian culture and that too, in its so called phase of 'inclusive growth'. Patriarchal biases - a legacy of the past, still prevails in various walks of life, adding up to discrimination against women and children. Laws of inheritance, religious and ritualistic practices, and social structures and institutions including marriage and family, emphasize and assign the prime role to the male child. Besides this, social pressures of marriage for girls and the practice of widespread dowry, increases the returns on male children.

Earlier it seemed that this approach of doing away with 'unwanted girls' was more appealing to the poor families. The use of scientific techniques to determine the sex of the unborn child and doing away with the 'unwanted girls' is therefore a safeguard against future calamity and hardships that are bound to befall the household when it is time for the daughters to get married (Rustagi, 2010). However, it is a paradox to see that a more adverse sex ratio was noted among the better-off and economically prosperous regions, when compared with economically backward communities and regions. This has been christened as 'prosperity effect' (Agnihotri, 2000). Prosperity effect, breadwinner requirements, old age security and religious rights and powers and a host of other factors ended up in the masculinisation of India's population. Definitely, this 'voiceless exclusion' will be the blackest mark on the well acclaimed Indian culture and that too, in its so called phase of 'inclusive growth'. If man continues with this myopic outlook of son preference, we may end up in disaster. Gendercide on a large scale and irreversible damage to mankind will be the outcome of the mushrooming growth of scanning centres, if unchecked and not monitored by law.

CONCLUSION

Gender composition of India's child population shows grave inequality and the gives the realization that there are far fewer women than men in India. NFHS provides strong evidence that the Sex Ratio at Birth for first-born children too has been below normal apart from witnessing substantially lower Sex Ratio at Birth for second order births, which is significantly lower than at order one and at any other birth order, revealing strong son preference. It is shameful to observe that even in this era of 'all inclusive growth', human development and gender empowerment; thousands of female fetuses are aborted every day and are excluded even before birth. This exclusion is too intense, as it denies even the right of females to be born and to live. Modern science and technology have been widely misused to determine the sex of unborn children and in terminating unwanted and burdensome pregnancies. Myopia of individuals and authorities culminated in 'gendercide'. Prosperity effect, breadwinner desire, old age security and religious rights and powers, and a host of other factors ended up in making India's population masculine. To ensure physical, emotional and reproductive health, equitable and sustainable balance between the opposite sexes is crucial and is the need of the hour.

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