

## Sex ratio in India – embarrassing to be honest

Archana Joshi and Neeraj Tiwari

The human population exhibits definitive characteristics in terms of its sex composition. In most parts of the globe less females are born, yet females, as compared to their male counterparts, typically survive longer to exceed the males numerically at any given point of time. However, this demographic attribute eludes many countries like India where males decisively outnumber the females and women constitute less than half of the total population. Sex preference for children in traditional consciousness and modern viewpoint, is common in many developing and developed countries, including India. This is more prominent in various parts of Asia and North Africa<sup>1</sup>.

Historically, giving birth to more children was the only way to meet the desires of expected sex structure. With changes in the means of fertility and control over it make it possible to meet the desires of both lesser births and getting the expected sex structure. This structure of sex is generally referred to ‘sex ratio’ (SR). Internationally, the term SR refers to the number of males per 1000 female population. In India, however, SR denotes the number of females per 1000 male population. SR is a direct indicator of women’s status and welfare. The analysis of SR underlies (relatively) greater deprivation and discrimination of females, as opposed to males, in the South Asian cultural set-up. Such practices are common in Asia<sup>2,3</sup>, particularly South Korea, North Korea, China<sup>2,4</sup>, Japan, India<sup>1,5</sup>, Bangladesh<sup>6</sup>, Nepal, Afghanistan, Pakistan, Taiwan, Hong Kong, Egypt, Vietnam<sup>7</sup>, etc. Such dynamics is also found in the developed world like the US<sup>8</sup> and Europe<sup>5</sup>, but during specific time zones.

‘British India’s first national census in 1871 confirmed for the whole of the sub-continent what had earlier been discovered for specific villages and districts in the north: that there were many fewer women than men’, as quoted by Mayer<sup>9</sup>, makes the perspective clear. It was Visaria’s<sup>10</sup> pioneering study of ‘sex ratios of the population of India’, which convincingly established the fact that the low SR is mainly due to the sex differentials in mortality. Miller<sup>11</sup> in her study emphasized the socio-cultural discrimination against female children as the

main reason for female mortality. She called this as ‘extended infanticide’, where life-sustaining inputs like food, nutrition and healthcare were denied to the girl child. This has been described as ‘the greatest single demographic change in the second half of the century’<sup>12</sup>. Several studies also suggest that cultural factors have played an important role in determining fertility trends<sup>13</sup>.

In the 1980s, 100 million women missing was proposed by Amartya Sen<sup>14</sup>, based on the comparative study of SRs in the female-deficit countries. Further, Klasen and Wink<sup>14</sup> found that of the number of missing women has increased. Another

study examined the economic value of women in Turkey<sup>15</sup>. Others argued that unequal access to healthcare leads to high mortality of females<sup>6,13,16</sup>. Other reasons like selective abortions and preference for a male child were also highlighted<sup>17-19</sup>.

The results of the 2011 Census have started a further debate on the issue and have narrowed down the focus to the changes in the juvenile or child SR (Figure 1)<sup>20</sup>. The current sex ratio (940) is the highest since 1971 (930), which shows an increase in overall SR. However, the child SR has drastically decreased since 1971 from 964 to 914 in the latest

**Table 1.** Distribution of sex ratio (z-scores from the national mean) since 1971 through 2011

State/UT	1971	1981	1991	2001	2011
Rajasthan	(-)/-	(-)/-	(-)/-	(-)/-	(-)/-
Uttar Pradesh	(-)/-	(-)/-	(-)/-	(-)/-	(-)/-
Madhya Pradesh	(+)/-	(+)/-	(-)/-	(+)/-	(-)/-
Punjab	(-)/-	(-)/-	(-)/-	(-)/-	(-)/-
Delhi	(-)/-	(-)/-	(-)/-	(-)/-	(-)/-
Haryana	(-)/-	(-)/-	(-)/-	(-)/-	(-)/-
Chandigarh	(-)/-	(-)/-	(-)/-	(-)/-	(-)/-
Gujarat	(-)/+	(-)/+	(-)/+	(-)/-	(-)/-
Lakshadweep	(-)/+	(+)/+	(-)/+	(+)/+	(-)/+
Mizoram	NA/+	(+)/-	(+)/-	(+)/+	(+)/+
West Bengal	(+)/-	(+)/-	(+)/-	(+)/+	(+)/+
Sikkim	(+)/-	(+)/-	(+)/-	(+)/-	(+)/-
Bihar	(0)/+	(+)/+	(+)/-	(+)/-	(+)/-
Assam	(+)/-	NA/-	(+)/-	(+)/+	(+)/+
Andaman and Nicobar Islands	(+)/-	(+)/-	(+)/-	(+)/-	(+)/-
Maharashtra	(+)/0	(-)/+	(+)/+	(-)/-	(-)/-
Himachal Pradesh	(+)/+	(+)/+	(+)/+	(-)/+	(-)/+
Karnataka	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Manipur	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Puducherry	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Tamil Nadu	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Tripura	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Goa	(0)/+	(+)/+	(+)/+	(+)/+	(+)/+
Andhra Pradesh	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Orissa	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Uttarakhand	NA/+	NA/+	(+)/+	(-)/+	(-)/+
Daman and Diu	NA/+++	NA/+++	(+)/+	(-)/-	(-)/-
Kerala	(+)/+++	(+)/+++	(+)/+++	(+)/+++	(+)/+++
Nagaland	(+)/-	(+)/-	(+)/-	(+)/-	(+)/-
Jharkhand	NA/+	NA/+	(+)/+	(+)/+	(+)/+
Arunachal Pradesh	(+)/-	(+)/-	(+)/-	(+)/-	(+)/-
Meghalaya	(+)/+	(+)/+	(+)/+	(+)/+	(+)/+
Chhattisgarh	NA/+	NA/+	(+)/+	(+)/+	(+)/+
Dadra and Nagar Haveli	(+)/+	(+)/+	(+)/+	(+)/-	(+)/-
Jammu and Kashmir	(-)/-	(+)/-	NA/-	(+)/-	(-)/-

Signs in parenthesis represent child (0–6 years) sex ratio. ‘-’ and ‘+’ represent deviation from the mean values. Source: Census of India<sup>20</sup>.

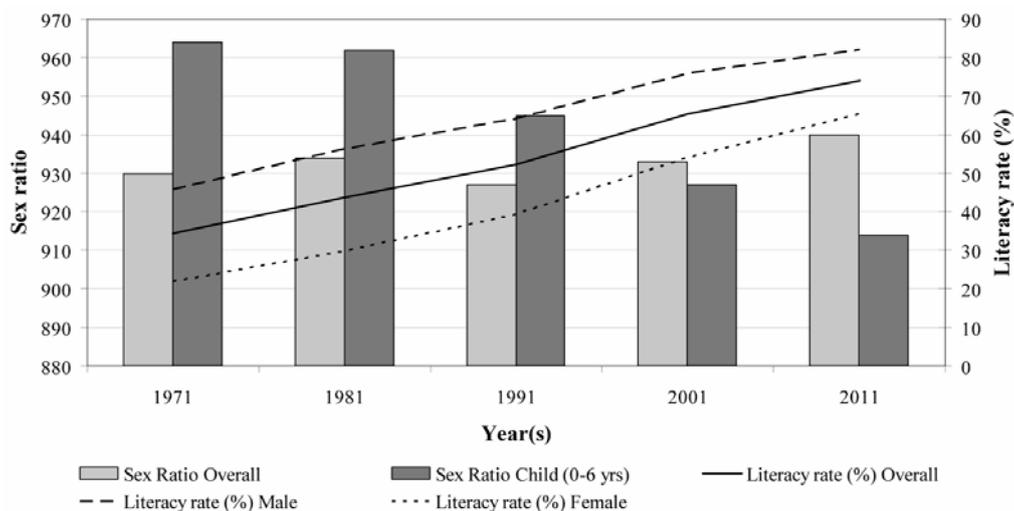


Figure 1. Distribution of sex ratio and literacy rate (Source: Census of India<sup>20</sup>).

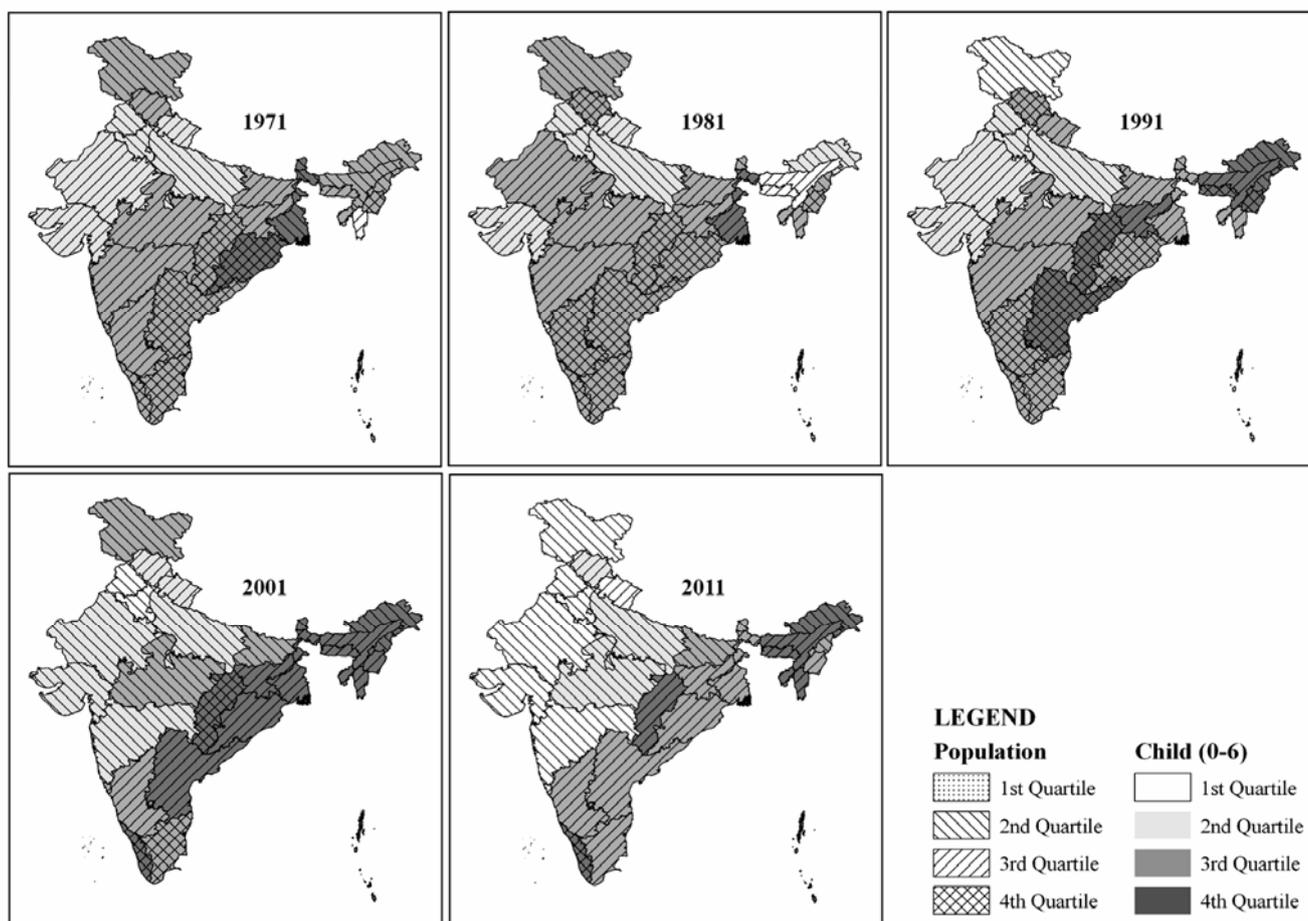


Figure 2. Sex ratio in India. Patterns represent the sex ratio of total population and shades represent sex ratio of children between 0 and 6 years (Source: Census of India<sup>20</sup>).

census. And the trend has been consistently decreasing throughout the years.

Social scientists have argued that with increasing welfare and economic devel-

opment, the importance of factors such as preference for a male child would decline. But the current trends do not advocate this. The literacy rates in both male

and female population have increased tremendously. It appears that such improvements have further shown the preference for a male child in the society<sup>13,21</sup>.

They also draw attention to the unusually high SRs at birth and high female mortality rates relative to males, especially in the early years of life and for daughters with elder sisters. The practice of female infanticide has apparently continued till recent years<sup>1,9,11,22</sup>.

The results of the census at the state level are more alarming indicating a skewed distribution of SR and sex preferences among the communities (Figure 2 and Table 1). The child SR has fallen in 27 states (including Union Territories) during this decade. The SR is consistently low in Haryana, Punjab, Delhi and Chandigarh. Over the period, the child sex ratio in Punjab and Haryana has decelerated, and in other places it is below the national average. Rajasthan, Uttar Pradesh and Madhya Pradesh have low child and population SR than the national average. But the condition has neither improved nor deteriorated. Gujarat and Lakshadweep have poor child SR, but relatively better population SR. States in South India (Karnataka, Puducherry, Tamil Nadu, Andhra Pradesh, Kerala and Goa), North East India (Meghalaya, Mizoram, Manipur and Tripura) and Central India (Jharkhand, Orissa, Chhattisgarh) have maintained a good SR in both child and overall population, in spite of variations in infrastructure, accessibility and dependence on resource and diversity among the population. West Bengal and Assam are known for good child SR and improved population SR. In Sikkim, Bihar, Nagaland, Arunachal Pradesh and Andaman and Nicobar Islands, the child SR is maintained while overall SR is lower than the national average. States in the western Himalayas (Jammu and Kashmir, Himachal Pradesh and Uttarakhand) have shown decline in child SR, whereas Maharashtra and Daman and Diu have entire SR imbalance.

Low SR as reported by the 2011 Census of India<sup>20</sup> has again attracted atten-

tion of scholars and self-helping groups. The 2011 census has shown that India has lower number of females than that of males. This is an epidemic that will have far-reaching social consequences. The adult SR has been declining, and the recent evidences show a sharp decline in child SR throughout the country. The decrease in child SR in the northern and northwestern states is alarming, whereas decrease in child SR in the eastern and central Indian states is also a matter of concern. It is clear that the present government policies do not have any impact in maintaining the SR and even population growth. The programmes and initiatives proposed by the government do not have any impact on the ground. However, the southern states have not only maintained a good SR but are also found to increase in some states. This is due to less discrimination of females in these states compared to those in North India. We need to identify the surveillance tools to identify the hotspots of the declining SRs and prioritize the programmes. Self-help groups, non-governmental organizations and local communities need to be empowered with the knowledge and awareness about a balanced SR. Society needs a paradigm shift in the attitude towards females and their capabilities. Only fighting discrimination and publicizing the resultant hardship could do this. Else, this leaves us with no option other than waiting for the time when patterns of discrimination against girls in India converges to those found in China and South Korea.

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Archana Joshi\* is in the DPC Institute of Management Studies, Dwarka, New Delhi 110 075, India; Neeraj Tiwari is in the Department of Statistics, Kumaun University, SSJ Campus, Almora 263 601, India.

\*e-mail: archanajoshi11@gmail.com