Religion and Female-Male Ratios in India

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Abstract

The data is largely based on Census records from 1881 to 2011 of South Asian countries especially India, disaggregated by sex, age and religion.

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Abstract

The 2011 Indian census affirms that child sex ratios of Muslims and Christians (as Abrahamic religions) are 'normal', but those of Hindus, Sikhs, Jains and Buddhists (as Dharmic religions of Indian origin) are below par, due to increasing sex selective abortion. One probable explanation could be that the scriptures of Abrahamic religions – especially the Quran – explicitly forbid female infanticide, a practice common in Pagan Arabia in the Middle Ages. Therefore, most of India's neighbours, including Muslim-dominated Pakistan and Bangladesh, have normal child sex ratios and the epicenter of the problem of low child sex ratios in South Asia is now largely concentrated in India. Historical census data also suggests that this acute gender bias is perhaps a recent phenomenon as before the widespread usage of ultra-sound technology for sex determination, sex ratios of Hindus were in fact better than Muslims in India.

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I. Introduction

In patriarchal India, for centuries due to 'son preference' or 'daughter aversion' more female infants have died than males. This morbid gender discrimination manifests itself in both female infanticide and greater overall neglect of healthcare and nutrition of female children. Since the eighties, with the introduction of ultra-sound technology which also enables sex-determination of the fetus in the uterus, this extreme patriarchal prejudice has also spawned the practice of sex-selective abortion (Bhat, 2002). Therefore, gender discrimination is also reflected in the large number of 'missing women' in the population (Sen, 1990).

Further, demographic literature has begun to identify religion as an important fulcrum of not only differences in socio-economic indicators but also child sex ratios (Borooah et al., 2009). In the context of fertility, two theories have been proposed to explain differences based on religion. The 'characteristics hypothesis' emphasizes the higher levels of poverty and lower levels of education of Muslims in India compared to Hindus, while the 'pure religion effect' focuses on the influence of religious norms and injunctions (Iyer, 2002). This paper will argue that in the case of child sex ratios, religious sanctions assume greater significance. Islamic religious sanctions, similar to other 'Abrahamic religions' like Christianity with common historical roots (Armstrong, 1999), constitute a progressive influence on child sex ratios as they explicitly condemn infanticide of female children (and by moral extension sex selective abortion). As a matter of fact, the higher child sex ratios of Muslims, is particularly commendable given their lower levels of socio-economic development and literacy in India (Sachar Commitee, 2006) (Shariff, 2013). On the other hand, the 'Dharmic religions', a generic term used for faiths which have originated in the Indian subcontinent and ironically emphasize the principle of 'dharma' (righteousness)

(Frawley, 1990), do not have explicit injunctions against female infanticide in the classic scriptures. Therefore, in recent decades especially with the advent of sex-determination technology the child sex ratios of – Sikhs, Jains, Hindus and Buddhists – have plunged below the "normal" benchmark.

To investigate these religious variances at the outset, this article in section II will examine recently released data on sex ratios from the 2011 census. Section III will then consider the influence of religious customs and sanctions. The next section with a pan-South Asian lens will map religious patterns in sex ratios, with a special focus on changes in Bangladesh in the last four decades. Section V will then narrow the prism to observe geographical and historic patterns within India. It must also be clarified that while this paper will present data on sex ratios of principal religions currently practiced within South Asia, the analysis largely focuses only on Hindus and Muslims, as demographically dominant religions.



II. Sex Ratios

Source: Census 2011, 2001 and 1999, Tables C-1 Population by Religious Community

The 1991 and 2001 censuses revealed that Muslims (930 and 936) and Hindus (925 and 931) had similar sex ratios (females per 1000 males), with the former consistently at a slight advantage (Figure 1). While Christians were at the forefront (1009 and 1023), Sikhs (888 and 893) trailed behind substantially. But the 2011 census displays a significant new trend. Muslims have shown a marked improvement in the last decade from 2001 to 2011. The female-male ratio has increased from 936 to 951 women for every 1000 Muslim men. But in the same period, the Hindu ratio has risen only from 931 to 939.

But the more pertinent statistics of child sex ratios displays an even more distressing trend (Figure 2). In 2011, for every 1000 male children under six years of age, there were only 919 female children in India. These abnormally low national statistics have fallen to their lowest ebb in seven decades since independence.



Source: Census 2011, Table C-15 Religious Community By Age-Group And Sex (India & States/UTs/District Level)

The differences between religious communities also reveal significant differences. In 2001, the child sex ratio (0-4 years) for Muslims was 950, which is considered 'normal'ⁱ, with a similar figure (947) in 2011. Christians (960) are also above the benchmark. On the other hand, Sikhs, Jains, Hindus and (to a lesser extent) Buddhists have markedly lower child sex ratios, well below the normal benchmark – a glaring symptom of gender discrimination.

Further, after a number of awareness campaigns, though child sex ratios for Sikhs and Jains have improved in the last decade those for Hindus and Buddhists have worsened. Hindu female children are more likely to die than their Muslim counterparts across several regions in India (Iyer and Borooah, 2005). Further, in both cases, if state boundaries are considered as markers, then the country can be geographically divided into two contiguous areas wherein the North and the West have lower child sex ratios due to cultural differences, while the South and the East are more progressive (Maps 1 and 2) (Sen, 2006). Wealthy states like Haryana in the North fare the worst with a Hindu child sex ratio of 832 compared to a better Muslim ratio of 916.

Maps 1 and 2: Hindu and Muslim Child Sex Ratio, 2011



Source: Author calculations based on Census 2011 Table C-15 Religious Community By Age-Group And Sex (India & States/UTs/District Level)

III: Religious Sanctions

Hinduism, as one of the oldest religions in the world, predates other Dharmic faiths, which also share their origins in the Indian subcontinent. Classical Hindu scriptures do not endorse abortion, expect in exceptional circumstances. They also recommend abjuration from female infanticide, but the practice has been widespread for centuries and was heavily researched by British colonial administrators (Grey, 2013). On the other hand, classical Hindu texts do revere sons for their divine duty to perform funereal rites of parents and thereby guarantee the pathway to Heaven. The ancient text Manusmriti written in the second or third century asserted that, "*Because a son delivers his father (trâyate) from the hell called Put, he was therefore called put-tra (a deliverer from Put)…."* (Bühler, 1886:354). Further religio-cultural practices like dowry exacerbate the undervaluation of women and the perception of female children as economic liabilities to natal families (Sineath, 2004). Further, 'kanyadaan' as a 'donational' notion of marriage in Hindusim and the stigma against female re-marriage augment devaluation of daughters and patriarchal 'son preference' (Borooah et al., 2009).

Jainism and Buddhism, as Dharmic faiths, both of which originated in the 6th century B.C. are deeply centered on the values of non-violence and compassion. Sikhism as the world's youngest major religion was also founded in the fifteenth century on the explicit premise of social and gender equity (Behl, 2010). However, with their low child sex ratios, the followers of these Dharmic faiths seem to have drifted away from the essence of their religious tenets. Especially among Jains and Sikhs as materially prosperous communities in modern India, the cultural practice of dowry and patrilineal heritage in a capitalistic framework has exacerbated gender discrimination.

However, in 2001 the highest religious Sikh authority of Akal Takht issued a religious edict (*hukumnama*) (Nanda, 2001) to excommunicate believers who engage in female feoticide and it seems to have had a positive influence to marginally improve child sex ratios within a decade. The decree indicates the importance of religious injunctions, though the practice of sex selective abortion has far from been eliminated among Sikhs.

On the other hand, the Abrahamic faithsⁱⁱ – i.e. Judaism (7th century B.C.), Christianity (1 century A.D.) and Islam (6th century A.D.) with origins in Arabia have explicit religious

sanctions against female infanticide in their holy scriptures. The Quran, for example, explicitly forbids both infanticide and female infanticide, a practice common in Arabia since antiquity (Suad and Naǧmābād, 2003). The Surah Al-Nahl describes regressive daughter aversion, "when the birth of a girl is announced…his face darkens and he is filled with gloom…should he keep her and feel disgraced or bury her in the dust?" (Chapter 16: Verse 57-59) (Khan, 2013). The Surah Al-Takwir condemns this practice of female infanticide with the philosophical verses, "when the female infant buried alive is asked for what sin she was killed" (81:8-9). Further, the Surah Al-Anam explicitly forbids infanticide due to "fear of poverty" (6:151). Most importantly, the Surah Al-Isra spells out, "you shall not kill your offspring for fear of want. It is we who provide for them, and for you. Indeed, killing them is a great sin" (17:31).

Similarly, the Torah explicitly admonishes the elimination of infants (and mature fetus) and the Bible, which shares historical roots as a religious scripture, and has an explicit commandment against murder is also often interpreted to be 'pro-life'. Though, different schools of Islamic jurisprudence offer varied interpretations on abortion it is largely regarded as taboo or forbidden (haram) after the first trimester. Sex-selective abortion would also seem to go against the unequivocal affirmation in the Haddiths that daughters are blessings. In one verse collection,ⁱⁱⁱ the Prophet is reported to have asserted that Paradise is guaranteed for anyone who raises three daughters with love.

But apart from the scriptures there could also be a number of other cultural factors, which ensure better sex ratios among Muslims, despite lower levels of literacy and economic development.

First, Muslims have lower infant and under-five mortality rates than Hindus (IIPS and ICF, 2017) (Sachar Commitee, 2006) (Bhalotra et al., 2010) as mothers are less undernourished, less likely to work outside the home, less anemic due to non-vegetarian diets (Deolilikar, 2010) and families are less likely to defecate in the open (Geruso and Spears, 2014). Further analysis of the India Human Development Survey (IHDS) 2005 data reveals that female under-five mortality rates are twice as high in Hindu families and in terms of "caring for their daughters, Muslim families are more egalitarian than Hindu families" (Desai and Temsah, 2014:2324).

Second, lower 'son preference' may also be the outcome of intrinsically Muslim cultural practices. Endogamy and closer kinship ties ensure that women are not as distanced from their natal families after marriage and nurturing daughters is considered to be less of an exercise in 'watering a neighbour's garden' (Attané and Guilmoto, 2007). Further marriage is considered to be a contract rather than a sacrament and there is also explicit religious approval for female re-marriage. Most importantly the Muslim practice of dower or bride price (*mahr*) paid to prospective wives by husbands ensures that female children are symbolically less likely to be considered as economic liabilities by their parents, especially in comparison to Hindus (and other Dharmic faiths) where the reverse cultural practice of dowry (often exorbitant) is demanded by grooms (Bhalotra et al., 2010) which is more limited, but increasing among Muslims (Waheed, 2009).

Third, another explanation proposed is that that due to higher fertility and larger family sizes among Indian Muslims, there is a lesser pressure for sex selection (Iyer and Joshi, 2013). Inversely, China's state imposed restriction on family sizes through the one-child policy has apparently increased the propensity for families to engage in sex-selective abortion (Zhu et al., 2009). However, the assumption of an inverse relationship between family sizes and child sex ratios does not apply to all Asian countries such as Bangladesh.

IV. South Asian Sex Ratios



Source: World Development Indicators Database (last accessed 18 March 2018), which derives from the Demographic Health Surveys.

India's eastern neighbour with a ninety percent Muslim population has had a historic fall in fertility in the last three decades from 6 to 2.2 children per woman (now even lower than middle-income countries such as Sri Lanka). Nevertheless, Bangladesh has also simultaneously managed to substantially improve sex ratios since 1990 to the current 982 females for every 1000 males. In the same period, India's comparable female-male ratio has stagnated at a lower plateau (Figure 3). Research within Bangladesh, however does attest to the fact that some attitudes of son-preference do persist alongside the increasing choice for smaller families. Nevertheless, despite the disclosure of the sex of the fetus (since it is not banned with ultra-sound technology), the practice of sex-selective abortion is *"almost entirely absent"*, as abortions themselves are illegal, apart from the practice of menstrual regulation (Talukdar et al., 2015:46). On the contrary, India's female-male ratios have steadily worsened since 1981, especially in the context of second and third births when the elder children are girls (Jha et al., 2011), in large measure due to increasing sex-selective abortion and weak enforcement of the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, 1994. Map 3: District-wise Child Sex Ratios across South Asia, 2011



Source: India: Census 2001 and 2011, Bangladesh: Census 2001 and 2011, Nepal: Census 2001 and 2011, Sri Lanka: Census 2001 and 2012, Pakistan: Gechter Michael (2010) and Demographic and Health Survey 2012-13 and Census 2001. Note: 1. For Pakistan in 2001 and 2011 only province level averages and not district level data has been employed. The latest 2017 Pakistan census has not yet released child sex ratios, 2. Indian data is for 0-6 years while all other countries report 0-5 years and Bangladesh 0-4 years, 3. Data has been presented as female children for every 1000 male children, 4. National boundaries are for representational purposes only and should not be interpreted as actual political borders

In this context, Map 3 indicates several important regional patterns. First, the Muslim advantage in sex ratios seems to be pronounced across South Asian countries. In 2011 India's Muslim-majority neighbours, Pakistan and Bangladesh largely possessed normal child sex ratios (shaded in dark green colour).

Second, comparisons across borders areas sharpen the contrasts. The difference between the healthy ratio in the Pakistani province of Punjab (965) compared to the abysmal one in the Indian state of Punjab (846 with many districts shaded in red) is particularly stark. Religion is largely the most important point of distinction across the two sides of the Punjab border, which have a shared history. Though the Indian state of Punjab is an extreme case and inhabited predominantly by Sikhs and Hindus, it reflects the acute gender discrimination characteristic of northern and western India. Other reasons could also include the widespread availability and affordability of ultra-sound technology in India as compared to Pakistan (Zaidi and Morgan, 2016). Interestingly, a study of immigrants (largely Punjabi) in Norway, finds that only mothers of Indian-origin display skewed sex ratios for third and fourth births since 1987, while the Pakistani cohort has maintained a stable ratio from 1969-2005 (Brekke, 2013).

Third, increasingly India seems to have become an exception in South Asia with an alarmingly decreasing trend of child sex ratios especially among Hindus due to the availability and misuse of sex-determination technology. Even Nepal as a Hindu majority country despite increasing incidences of sex-selection since the 2002 legalization of abortion in the first trimester has better child sex ratios than India. Sri Lanka as a Buddhist-dominated country, too, fares even better as abortion is illegal (Kumar, 2013).

Fourth, though all of India's neighbours have improved their child sex ratios in the last decade, within India child sex ratios have aggravated (barring Punjab and Haryana which have crafted an improvement albeit from an abysmally low base). The blight of low sex ratios has spread to twice the number of districts in the country between 2001 and 2011 especially in the prosperous belts of western and southern India, mainly due to the spread of sex selective abortion (Jha et al., 2011).

Lastly, another perverse trend in India is that educated women from relatively prosperous households are more likely to practice sex-selective abortion (Bhalhotra and Cochrane, 2010)(Jha et al., 2011). This compares unfavourably with Pakistan, as even though female literacy in the province of Baluchistan is a meagre 23 percent and the district of Dera Bugti an abysmal 1 percent, they are less likely to eliminate their unborn and newborn daughters.

V. Sex Ratios within India

Further within India, there seem to be distinctive patterns between child sex ratios, religion, geography and literacy. Across every state in the country (except those in the North East, Kerala and Chhattisgarh) child sex ratios are higher among Muslims than Hindus. In the North, even though Muslim female youth literacy rates (15-24 years) are distinctly lower than Hindus, child sex ratios of Muslims are substantially higher (Figure 4). On the other hand, in the four Southern states interestingly Muslims have higher levels of literacy than Hindus but the advantage in child sex ratios is less pronounced. Kerala is the only nationwide exception where Hindu ratios are marginally better.

Figure 4: Difference between Hindu and Muslim Female Youth Literacy and Child Sex Ratios based on geographical distribution of states into four regions



Source: Author calculations based on Census 2011 Table C-15 Religious Community By Age-Group And Sex (India & States/UTs/District Level) and C-09 Education Level By Religious Community And Sex For Population Age 7 And Above – 2011 (India & States/UTs), without union territories and north eastern states

Further, the 2011 census indicates that scheduled castes (941) and especially scheduled tribes (962) have higher child sex ratios than other castes (943). Chhattisgarh, for example, is one of the most economically backward states in India with a high tribal population, but her districts have amongst the best child sex ratios. This trend of higher sex ratios among marginalised castes has been noted even in pre-independence census reports (Drèze and Sen, 2002). The 1931 Indian census, for example, observed that, *"it is generally recognised that the ratio of females to males increases inversely with social standing among Hindus"* (Hutton, 1933:198).



Source: Author compilation from Imperial census of India for various years from 1881 to 2011.

However, historical trends of decennial censuses indicate that overall sex ratios of Hindus were, in fact, marginally better than Muslims till 1981, which coincides with the introduction of in-utero ultrasonography technology which enables sex determination in India (Figure 5). Ironically sex ratios among Sikhs were even worse before the introduction of this technology.

VI. Conclusion

This research indicates that it is imperative to disaggregate child sex ratios based on markers of religion, caste, literacy, geography and kinship to analyse in greater depth the underlying influencers of sharp differences between communities and countries within South Asia. Within India, child sex ratios are largely normal among Christians, Muslims (and other Abrahamic faiths) but are much lower among Hindus, Sikhs and Jains (as Dharmic religions). Though scriptures of Abrahamic faiths especially Islam explicitly ban female infanticide, Hinduism and other Dharmic faiths till recently do not seem to have similar religious sanctions on sex-selective abortion or infanticide. Within India, these socio-cultural and religious factors augment the Muslim advantage in child sex ratios (Borooah et al., 2009). Increasingly, within South Asia, low child sex ratios are an isolated Indian phenomenon that is worsening among upper caste Hindus. On the other hand, there is negligible evidence of large-scale sex-selective abortion in neighbouring South Asian countries.

Historical records also suggest that till the eighties, Hindus in fact had marginally better female-male ratios than Muslims, but with the advent of sex selective abortion these ratios have now been reversed. Further sex selective abortion is greater among educated and wealthy families with no evidence that literacy improves child sex ratios. So, apart from government initiatives with ironical slogans like 'Beti Bachao Beti Padhao' (Educate Daughters, Save Daughters) and trivial hashtags like #SelfieWithDaughters, perhaps it is time for Hindus, Sikhs and Jains to learn from their Muslim and Christian neighbours to cherish and save millions of India's daughters.

Bibliography

Armstrong, K. (1999). A History Of God (London: RHUK).

Attané, I., and Guilmoto, C. (2007). Watering the Neighbour's Garden: The Growing Demographic Female Deficit in Asia (Paris: Committee for International Cooperation in National Research in Demography).

Behl, N. (2010). Politics of Equality: Caste and Gender Paradoxes in the Sikh Community. University of California.

Bhalhotra, S., and Cochrane, T. (2010). Where have all the young girls gone? Identification of sex selection in India. Institute for the Study of Labor (IZA) *IZA Discussion Papers 5381*.

Bhalotra, S., Valente, C., and van Soest, A. (2010). The puzzle of Muslim advantage in child survival in India. J Health Econ *29*, 191–204.

Bhat, P.N.M. (2002). On the Trail of "Missing" Indian Females: I: Search for Clues. Economic and Political Weekly *37*, 5105–5118.

Borooah, V., Do, Q.-T., Iyer, S., and Joshi, S. (2009). Missing Women and India's Religious Demography. World Bank *5096*.

Brekke, T. (2013). Religion and sex-selective abortion: a comparative study of immigrants from South Asia to Norway. Diaspora Studies *6*, 31–39.

Bühler, G. (1886). The Laws of Manu.

Deolilikar, A. (2010). How do Indian Muslims Fare on Social Indicators? In Handbook of Muslims: Empirical and Policy Perspectives (Eds.) Basant, R and A, Shariff, (New Delhi: Oxford University Press), p.

Desai, S., and Temsah, G. (2014). Muslim and Hindu Women's Public and Private Behaviors: Gender, Family, and Communalized Politics in India. Demography; Silver Spring *51*, 2307–2332.

Drèze, J., and Sen, A. (1991). Hunger and Public Action - Oxford Scholarship.

Drèze, J., and Sen, A. (2002). India: Development and Participation (Oxford University Press).

Frawley, D. (1990). From the River of Heaven: Hindu and Vedic Knowledge for the Modern Age (Salt Lake City, Utah: Morson Pub).

Geruso, M., and Spears, D. (2014). Sanitation and Health Externalities: Resolving the Muslim Mortality Paradox. Indian Statistical Institute *Working Paper*.

Grey, D.J.R. (2013). Creating the 'Problem Hindu': Sati, Thuggee and Female Infanticide in India, 1800–60. Gender & History *25*.

Hutton, J.H. (1933). Census of India, 1931 (Delhi: Manager of Publications).

IIPS and ICF (2017). National Family Health Survey (NFHS-4), 2015-16 (Mumbai, India: International Institute of Population Sciences).

Iyer, S. (2002). Religion and the Decision to Use Contraception in India. Journal for the Scientific Study of Religion *41*, 711–722.

Iyer, S., and Borooah, V. (2005). Religion, Literacy, and the Female-to-Male Ratio : | Economic and Political Weekly. Economic and Political Weekly *40*.

Iyer, S., and Joshi, S. (2013). Missing Women and India's Religious Demography. Journal of South Asian Development *8*, 301–331.

Jha, P., Kesler, M.A., Kumar, R., Ram, F., Ram, U., Aleksandrowicz, L., Bassani, D.G., Chandra, S., and Banthia, J.K. (2011). Trends in selective abortion of female foetuses in India: analysis of nationally representative birth histories from 1990–2005 and census data from 1991–2011. Lancet *377*, 1921–1928.

Khan, M.W., and Goodword (2013). Quran: A Simple English Translation (Goodword Books).

Kumar, R. (2013). Abortion in Sri Lanka: The Double Standard. Am J Public Health *103*, 400–404.

Nanda (2001). Sikh clergy to fight selective abortion. UPI.

Sachar Commitee (2006). Socio-Economic and Educational Status of the Muslim Community of India: A Report (New Delhi: Prime Minister's High Level Committee, Cabinet Secretariat, Government of India).

Sen, A. (1990). More Than 100 Million Women Are Missing. The New York Review of Books.

Sen, A. (2003). Missing women—revisited. BMJ 327, 1297–1298.

Sen, A. (2006). The Argumentative Indian: Writings on Indian History, Culture and Identity (Penguin).

Shariff, A. (2013). Six years After Sachar: Review of Socially Inclusive Policies in India Since 2006 (New Delhi: Special Report No 01, Policy Paper).

Sineath, S.A. (2004). Son Preference and Sex Selection Among Hindus in India. The Florida State University.

Suad, J., and Nağmābād, A. (2003). Encyclopedia of Women and Islamic Cultures: Family, Law and Politics (Brill).

Talukdar, M.N., Rob, U., Hossain, M.I., and Noor, F.R. (2015). Understanding Factors Influencing Adverse Sex ratios at Birth in Bangladesh (Population Council).

Zaidi, B., and Morgan, S.P. (2016). In the Pursuit of Sons: Additional Births or Sex-Selective Abortion in Pakistan? Popul Dev Rev *42*, 693–710.

Zhu, W.X., Lu, L., and Hesketh, T. (2009). China's excess males, sex selective abortion, and one child policy: analysis of data from 2005 national intercensus survey. BMJ *338*, b1211.

Endnotes

ⁱWhile more male than female children tend to be born at birth with a natural sex ratio at birth of 1.05, as derived from general trends in Europe and America, in the neo-natal period (1-28 days) boys with weaker immune systems tend to have a higher mortality rates such that female-male ratios even out by adulthood. But since birth registration data is limited in India, the assumption is that the same male advantage at the age of 6 translates into a 'normal' expected benchmark of 950 females per 1000 males (Sen, 1990)(Sen, 2003) (Drèze and Sen, 1991).

ⁱⁱAbrahamic religions refer to monotheistic faiths which believe in Prophet Abraham and his descendants

ⁱⁱⁱBy Jabir bin Abdullah authenticated by Al-Albani