

The Demographic Paradox of Haryana: Economic Growth and Persistent Gender Imbalance

Dr. Parveen Rani Khatri

Associate Professor in Geography, Government PG College for Women, Rohtak

ABSTRACT

Sex ratio — the number of females per 1000 males — is a fundamental demographic indicator that simultaneously reflects biological realities and the socio-cultural status of women in a society. Haryana, one of the economically advanced states of India, has persistently recorded a low and unfavourable sex ratio, presenting a striking paradox between economic development and gender imbalance. This study examines the temporal trend of overall sex ratio in Haryana from 1971 to 2011 and analyses district-wise spatial variation across all 21 districts using Census 2011 data. The study is based entirely on secondary data drawn from Census of India publications and relevant academic literature, and employs a descriptive, comparative, and cartographic methodology supported by GIS-based choropleth mapping. Key findings show that Haryana's overall sex ratio improved from 861 in 2001 to 879 in 2011, yet remained below the national average. At the district level, Mewat/Nuh and Fatehabad recorded the highest overall sex ratio, while Gurugram, Panipat, and Sonipat remained among the lowest. The study concludes that persistent son preference, patriarchal social structures, and the uneven spread of education and awareness are the primary drivers of gender imbalance in Haryana, and that economic development alone is insufficient to correct the deficit without sustained social intervention and targeted policy.

Keywords: Sex Ratio, Haryana, Gender Imbalance, District-wise Analysis, Census 2011, Son Preference, GIS Mapping

INTRODUCTION

Sex ratio is an important demographic indicator that shows the number of females per 1000 males in a population. It is widely used to understand gender balance, the social position of women, and the overall demographic health of a region. A balanced sex ratio generally indicates better gender equality, while a low sex ratio reflects social discrimination, unequal opportunities, and adverse demographic conditions. In India, sex ratio has been a major concern because many regions have historically recorded fewer females than males. Haryana, despite its rapid agricultural growth, industrial development, expanding urbanization, and proximity to the National Capital Region, has continued to exhibit an unfavourable sex ratio. According to Census 2011, the overall sex ratio of Haryana was 879 females per 1000 males, which, though an improvement from 861 in 2001, remained below the national average.

The present paper examines the trend and pattern of sex ratio in Haryana at both the state and district levels across census years from 1971 to 2011. Since sex ratio reflects not only demographic behaviour but also socio-cultural conditions, the study is useful for understanding the status of women in Haryana.

Haryana presents a demographic paradox. It is one of the economically advanced states of India, yet it has historically recorded a low sex ratio. Persistent son preference, gender discrimination, social customs, and selective neglect of girls have contributed to this imbalance. Moreover, the problem is not uniform across the state. Some districts have relatively better sex ratio, while others show severe imbalance, indicating that regional differences in literacy, urbanization, migration, and social attitudes strongly influence the pattern. Therefore, a systematic study of the trend and district-wise variation of sex ratio is essential for understanding the demographic and social condition of Haryana.

Jha, Kumar, Vasa, Dhingra, Thiruchelvam, and Moineddin (2006) showed that the deficit of girls in India was closely associated with prenatal sex determination and selective abortion. Their study is important because it linked sex ratio distortion to household-level reproductive decisions rather than only to poverty or illiteracy.

Census of India publications have consistently treated sex ratio as an important indicator of gender inequality. The 2011 Census highlighted Haryana as one of the most gender-imbalanced states and emphasised the seriousness of the declining sex ratio in several districts.

Anup Singh (2019), in a district-level geographical analysis of sex ratio in Haryana based on Census 2011, showed that the state had a consistently low overall sex ratio and that the problem was spatially uneven: Mewat showed the highest values, while districts such as Gurugram, Mahendragarh, and Jhajjar performed poorly. The author also used GIS-based cartographic representation to highlight the regional pattern.

In a wider Indian context, Jha et al. (2006) demonstrated that declining female numbers among children were closely associated with sex-selective behaviour, especially in settings where son preference remained strong even after fertility decline. Their work is important because it links demographic imbalance not only with poverty but also with reproductive decision-making and access to medical technology.

Official Census of India analyses on the declining sex ratio in Haryana further underline that the problem is spatially uneven and socially rooted. District-level differences within the state suggest that literacy, women's status, urbanization, and family norms combine in different ways to shape gender outcomes. Thus, the literature makes it clear that Haryana's sex ratio problem should be interpreted both as a demographic issue and as a reflection of broader social inequality.

The literature thus establishes that Haryana's sex ratio deficit is rooted in persistent social attitudes, differential valuation of sons and daughters, and the uneven impact of literacy, urbanization, and policy across districts. The present study builds on this body of work by providing a systematic district-level analysis using Census 2011 data, supplemented by GIS-based mapping, to make both the temporal trend and spatial patterns more comprehensible.

Objectives of the Study

1. To analyze the temporal trend of sex ratio in Haryana.
2. To examine district-wise spatial variation in sex ratio in Haryana and identify areas of improvement and decline.
3. To examine the causes of gender imbalance and assess the impact of socio-economic factors on sex ratio in Haryana.

DATABASE AND METHODOLOGY

The present study is based on secondary data and follows a descriptive, analytical, and comparative methodology. It examines Haryana as a whole and then moves to the district level in order to identify temporal trends and regional differences in overall sex ratio. This integrated approach helps merge statistical description with geographical interpretation.

The main sources of data include Census of India reports, district census handbooks, government statistical compilations, and relevant academic studies. The study relies particularly on Census 2011 for the district-wise comparison of overall sex ratio and on census-based secondary compilations for showing sex ratio change between 2001 and 2011.

The collected data were organized into tables and interpreted using simple comparative techniques. Trend analysis was used at the state level to examine temporal change in sex ratio across census years. District-wise comparison was used to identify areas with relatively high and low sex ratio.

GIS is used, Haryana district boundary shapefiles joined with sex ratio data in ArcGIS. Choropleth maps prepared through graduated colours.

The formula used in this study is as follows: Overall Sex Ratio = (Number of Females / Number of Males) × 1000.

Study Area

Haryana is located in the northwestern part of India. It lies between 27°39' to 30°55' north latitude and 74°28' to 77°36' east longitude. The state covers about 44,212 square kilometres and occupies a strategic position around the National Capital Region. It is bounded by Punjab and Himachal Pradesh in the north, Rajasthan in the south and west, Uttar Pradesh in the east, and the National Capital Territory of Delhi in the southeast.

Physiographically, most of Haryana forms part of the fertile alluvial plains of north India. The Yamuna River forms its eastern boundary, while the Ghaggar and several seasonal streams influence parts of the northern region. In the south, the

Aravalli hill remnants extend into districts such as Gurugram, Faridabad, and Mahendragarh. These physical conditions have historically supported agriculture, dense settlement, transport development, and regional urban growth.

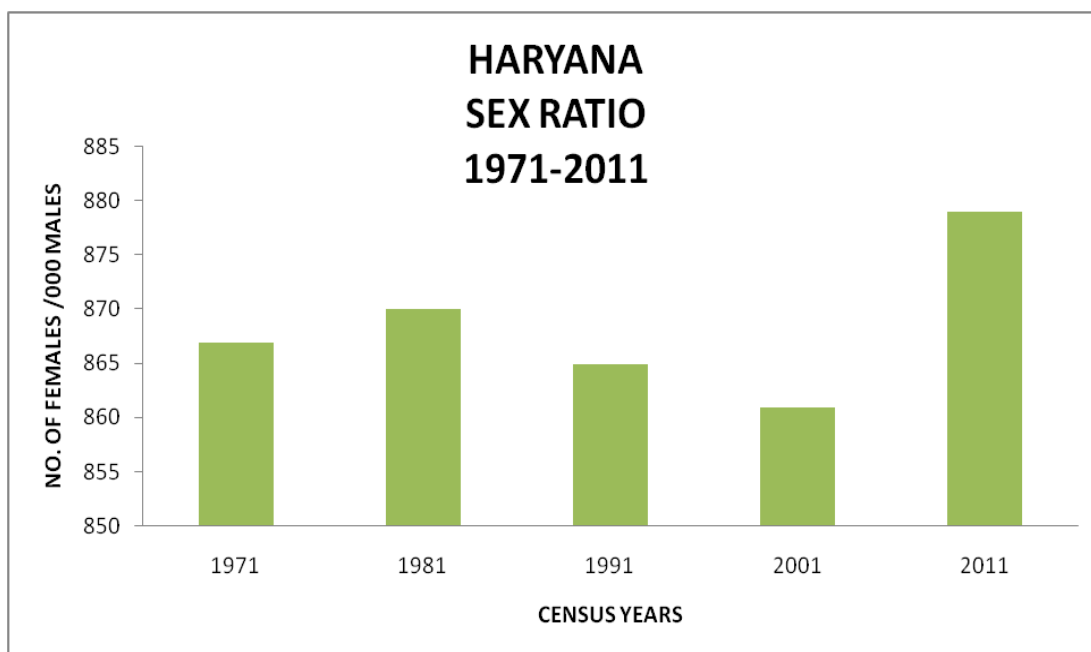
Economically, Haryana is one of the more developed states of India. Agriculture remains important, but districts such as Gurugram, Faridabad, Panipat, and Sonipat have experienced rapid industrialization and urban expansion. At the same time, districts like Nuh, Fatehabad, Sirsa, and Mahendragarh retain stronger rural characteristics. These contrasts make Haryana an ideal study area for examining sex ratio because demographic behaviour varies sharply between urban-industrial belts and traditional agrarian regions.

For Census 2011, Haryana had 21 districts. This paper therefore uses the 21-district framework for consistent district-wise comparison. Since district boundaries changed over time, a strict long-term district series for all current districts is not always possible; therefore, district-wise change is shown mainly for 2001–2011, where a comparable 21-district framework is commonly used in secondary compilations.

TREND OF SEX RATIO IN HARYANA

The state-level trend shows that Haryana maintained a low sex ratio over several decades. After a slight increase in 1981, the ratio declined again in 1991 and 2001. A noticeable improvement appeared in 2011, but even then the state remained below the national average. This indicates that gender imbalance continued despite economic development and modernization.

Diagram 1: Trend of Sex Ratio in Haryana, 1971–2011



Source: Based on Census-wise Haryana sex ratio data used in the study.

The table 1 shows that most districts of Haryana registered improvement in overall sex ratio between 2001 and 2011. Major gains were observed in Panchkula, Panipat, Faridabad, and Kaithal. However, Mahendragarh, Gurugram, and Rewari showed decline or stagnation. This confirms that improvement in Haryana was uneven and that rapid urbanization alone did not automatically produce a better gender balance.

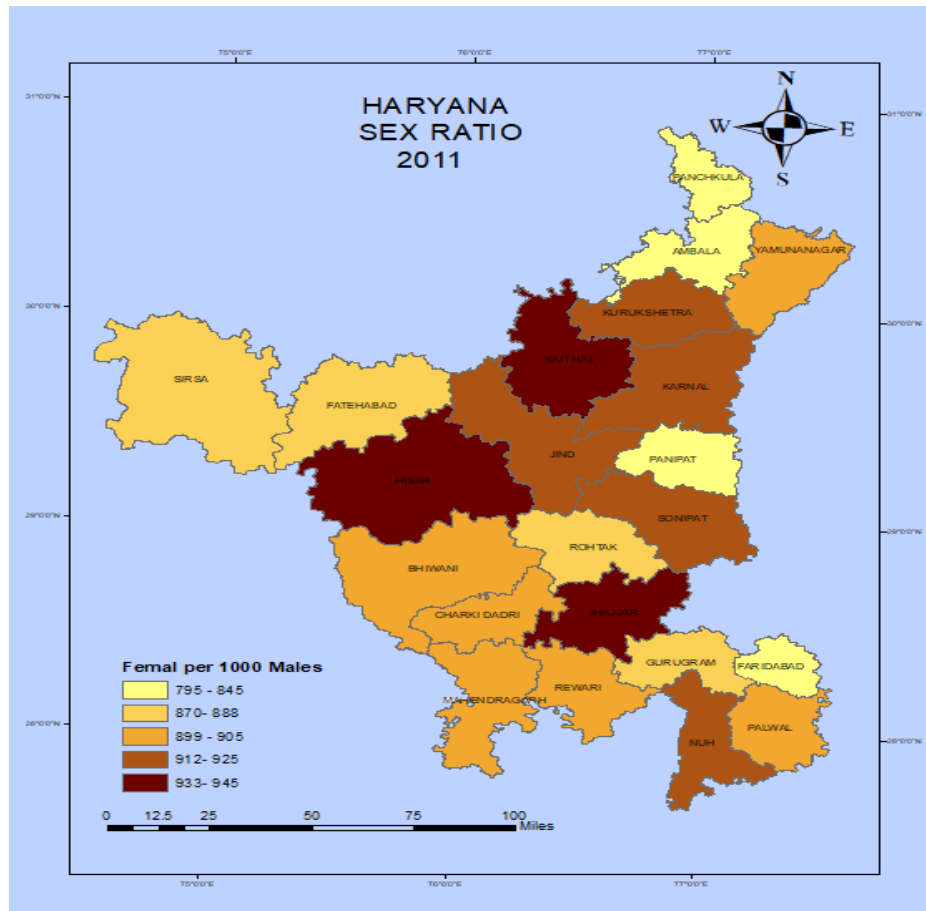
Table 1: District-wise Change in Overall Sex Ratio in Haryana, 2001–2011

District	2001	2011	Change
Panchkula	823	873	50
Ambala	868	885	17
Yamunanagar	863	878	15
Kurukshetra	866	888	22

District	2001	2011	Change
Kaithal	853	881	28
Karnal	865	887	22
Panipat	829	864	35
Sonipat	839	856	17
Jind	853	871	18
Fatehabad	884	902	18
Sirsa	882	898	16
Hisar	851	872	21
Bhiwani	879	886	7
Rohtak	847	867	20
Jhajjar	847	862	15
Mahendragarh	918	895	-23
Rewari	899	898	-1
Gurugram	873	854	-19
Mewat/Nuh	899	907	8
Faridabad	840	873	33
Palwal	862	880	18

Source: Census of India

Map 1 shows the district-wise distribution of overall sex ratio in Haryana in 2011. The pattern indicates clear regional disparity. Districts such as Hisar, Kaithal, Jhajjar, and Nuh appear in higher categories, whereas Panipat, Faridabad, and parts of northern Haryana fall in lower classes. The map suggests that sex ratio in Haryana does not correspond directly with urban growth or economic advancement; rather, it reflects the combined influence of social values, regional development, migration, and the status of women across districts.



Map 1: District-wise Overall Sex Ratio in Haryana, 2011

Causes of Low Sex Ratio in Haryana

The persistently low sex ratio in Haryana is the product of multiple interlocking social, cultural, and economic factors. The most deeply rooted cause is a strong preference for sons embedded in both family structures and broader society, which directly devalues the birth and survival of daughters. This preference is reinforced by a patriarchal social structure in which women hold a subordinate status, and by the burden of dowry and marriage-related financial obligations that make daughters an economic liability in the eyes of many families. Gender discrimination in access to care, nutrition, and opportunities further compounds the disadvantage faced by girls from birth. The misuse of prenatal sex-determination technology has enabled sex-selective practices that artificially suppress the number of female births, making this a critical proximate driver of gender imbalance. Additionally, male-dominated migration into industrial and urban centres skews the population composition in several districts. Finally, the uneven spread of education and social awareness across districts means that attitudes toward gender have changed at very different rates in different parts of the state, producing the spatial variation observed in census data.

Consequences of Low Sex Ratio

A sustained deficit of females in the population produces serious and wide-ranging demographic and social consequences. Most immediately, it disturbs the natural gender composition of the population, creating a structural imbalance that compounds over time. One of the most visible social outcomes is the “marriage squeeze” — a shortage of women in marriageable age groups that forces men, particularly in rural areas, to seek brides from distant regions or remain unmarried. This imbalance has also been linked to increased risks of trafficking, forced marriage, and various forms of social exploitation of women. More broadly, a low sex ratio both reflects and reinforces the reduced social and economic status of women, limiting their participation in public life and decision-making. If not corrected, the cumulative effect is a long-term demographic imbalance that generates social tension and undermines the inclusive development of the state.

Government Initiatives and Corrective Measures

Recognising the severity of gender imbalance in Haryana, both the state and central governments have introduced a range of legislative, administrative, and awareness-based interventions. The most prominent of these is the Beti Bachao, Beti Padhao campaign, launched with special intensity in Haryana given its critically low sex ratio, which has combined community outreach with targeted action in the most affected districts. Alongside this, strict enforcement of the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act has been pursued to curb the misuse of sex-determination technology and check sex-selective abortion. Promotion of female literacy and girls’ education has been central to longer-term strategy, recognising that educated women and families are more likely to challenge discriminatory norms. Women’s empowerment has been advanced through improved access to education, employment, and participation in local governance and decision-making bodies. At the administrative level, district-level monitoring of sex ratio and targeted intervention in the worst-performing districts have enabled more focused deployment of resources. The use of GIS mapping and local-level demographic analysis has further strengthened the capacity of planners to identify spatial disparities and respond to them systematically.

CONCLUSION

The study clearly shows that sex ratio in Haryana is not merely a demographic statistic; it is a reflection of social values, cultural attitudes, and the status of women in society. Haryana has historically maintained a low sex ratio across census decades, though a modest improvement was recorded in 2011 when the overall sex ratio rose to 879 from 861 in 2001. Despite this improvement, the state remained below the national average, and gender imbalance persists across many districts.

District-wise variation is pronounced, confirming that the problem is not spatially uniform: most districts registered improvement between 2001 and 2011, but Mahendragarh, Gurugram, and Rewari showed stagnation or decline. Districts such as Mewat/Nuh and Fatehabad recorded the highest overall sex ratio, while Gurugram, Panipat, and Sonapat remained among the lowest. The district-wise analysis further reveals that regional socio-cultural conditions play a decisive role in shaping demographic outcomes, and that urbanization and economic development alone do not eliminate gender imbalance: several prosperous and industrially developed districts continued to record low or declining sex ratios, demonstrating that social attitudes and cultural practices are the decisive variables rather than income levels or infrastructure.

The problem of sex ratio in Haryana cannot be solved by economic growth alone. It requires social reform, gender-sensitive education, strict law enforcement, community participation, and continuous awareness regarding the value of the girl child. Balanced sex ratio is essential for social justice, demographic stability, and inclusive development. Therefore, improving the overall sex ratio across all districts must remain a sustained priority for Haryana.



REFERENCES

- [1]. Jha, P., Kumar, R., Vasa, P., Dhingra, N., Thiruchelvam, D., & Moineddin, R. (2006). Low male-to-female sex ratio of children born in India: National survey of 1.1 million households. *The Lancet*, 367(9506), 211-218.
- [2]. Census of India. (2011). Provisional Population Totals, Paper 1 of 2011. New Delhi: Office of the Registrar General & Census Commissioner, India.
- [3]. Ahlawat, S. (2018). Growth of sex ratio of Haryana with special reference to Bhiwani District of Haryana: An analysis (1981–2011). *International Journal of Creative Research Thoughts (IJCRT)*, 6(1), 145–152. ISSN: 2320-2882.
- [4]. Ali, N. (2019). Study of sex ratio in India and state-wise analysis. *Review of Research*, 8(7), 1–9. ISSN: 2249-894X.
- [5]. Singh, A. (2019). Geographical analysis of sex ratio in Haryana, 2011. *International Journal of Research and Analytical Reviews*, 6(2), 357-360.