

Dynamics of Demographic Transition: A study of Facts and Factors in Haryana

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ABSTRACT

A country's demographic factors can significantly alter its economic landscape. Throughout human history, population growth was often stagnant and, in some regions, even experienced periods of decline. Key parameters such as birth rate, death rate, and infant mortality rate are crucial in defining a country's demographic profile. This paper examines the demographic transition model in Haryana and its impact on economic growth. It highlights how shifts in fertility, mortality, and life expectancy alter population structures. The study analyzes demographic, social, and economic indicators of Haryana using secondary data to explore how population dynamics influence economic growth, employing tables and graphs for clear representation of key trends. Haryana has seen economic and social progress, transitioning from agriculture to industry and services. However, challenges remain, including gender inequality, social disparities, and unemployment. Addressing these issues is crucial for achieving inclusive and sustainable development across all sections of society.

Keywords: Demographic transition, birth rate, death rate, employment, economic growth.



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INTRODUCTION

Throughout human history, population growth was often stagnant and, in some regions, even experienced periods of decline (Guo & Yu, 2017). In 1929, Warren Thompson introduced the concept of demographic transition through the Demographic Transition Model. He described it as the process of transforming fertility and mortality rates, leading to changes in population size and distribution. The model's phases include initially high birth and death rates, followed by a decline in mortality, and then a reduction in birth rates due to social and behavioral shifts, ultimately resulting in stagnant population growth (Ahmad & Khan, 2018).

Fertility rates, mortality rates, and increased life expectancy are key demographic indicators that influence both market trends and macroeconomic variables (Rezaei, 2021).

A country's demographic factors can significantly alter its economic landscape (Munir & Shahid, 2020). Key parameters such as birth rate, death rate, and infant mortality rate are crucial in defining a country's demographic profile. (Krishnan, 1976). Declines in mortality and fertility are among the key factors that contribute to promoting economic growth (Kalemlı-Ozcan, 2002).

A common outcome of the demographic transition process is population aging. The initial decline in fertility, combined with increased life expectancy, leads to a shift in the population's age structure, with a significant portion of people's lives spent in the older age group (Reher, 2004). Different age groups exhibit distinct economic behaviors, making changes in age composition crucial for a country's growth. The working-age population, in particular, has the most positive impact on economic development. For example, a larger working-age population and smaller family sizes lead to increased female participation in the workforce, boosting labor supply. Additionally, the working-age group serves as a savings channel, where a greater portion of income can be allocated to raising children (U. Kumar, 2013).

A large working-age population leads to a lower dependency ratio and an increased labor supply. With higher life expectancy, additional working years contribute to a more productive workforce. Age distribution, in the form of the dependency ratio, can influence a country's economic growth through demographic channels. The key to harnessing population growth lies in converting this cohort into a high-yield labor force for economic development. While population is a vital factor for both social and

economic progress, growth is shaped by multiple contributing factors (Munir & Shahid, 2020).

Haryana

Haryana is a state renowned for its rich cultural heritage and agricultural prosperity. It shares its borders with Himachal Pradesh to the north, Uttar Pradesh to the east, Punjab to the west, and Rajasthan to the south. Strategically located around the National Capital, Delhi, Haryana encircles it on three sides. The state plays a vital role in contributing wheat and rice to the Central Pool, a national reserve of surplus food grains (A. Singh, 2022).

Haryana's economic transformation after liberalization showcases its remarkable potential for growth. The transition from an agrarian economy to an industrial powerhouse has been characterized by strong economic growth, attracting investments and creating jobs. The manufacturing sector, in particular, has thrived, playing a major role in the state's economic output. However, challenges remain, including environmental sustainability, unequal economic distribution, and the need for skill development initiatives (Garg et al., 2023). Despite Haryana's structural shift from an agrarian economy to a rapidly growing industrial and services sector, the state has experienced slow employment growth, even with a predominantly youthful population (A. Singh, 2022).

Population is a key factor that governs society, influencing its social, economic, cultural, political, and historical conditions, while also being shaped by these very conditions (Vikas et al., 2017). Population growth in Haryana gained momentum after the Green Revolution, which boosted people's incomes and spurred the development of various economic activities, ultimately accelerating urbanization. Since its establishment as a separate state in 1966, and particularly from the 1970s onward, Haryana has experienced a significant acceleration in its urbanization process (S. Kumar & Patel, 2020).

However, in Haryana, a state known for its unique socio-economic characteristics and deeply entrenched cultural traditions, the rise of nuclear families is particularly striking. The state's rapid economic growth, fueled by industrialization and agricultural advancements, has brought significant changes to its social structure. While the traditional joint family system remains common in many areas, nuclear families are increasingly becoming the norm, especially in urban and peri-urban regions. This shift mirrors broader trends in Indian society but is also influenced by Haryana's specific socio-economic factors, including land fragmentation, migration, and evolving gender roles (Dave, 2020). Analyzing the growth of towns and cities by size class provides valuable insights into the stages of urban development within a country or state (Sangwan & Mahima, 2019).

In India, the traditional family structure has been centered around joint families, where multiple generations live together under one roof, sharing resources and responsibilities. This model has been foundational to Indian society, especially in rural areas where agricultural economies have flourished on collective living and cooperative labor. The joint family system has not only offered economic security but also acted as a social safety net, promoting interdependence and strengthening kinship bonds (Prasad, 2020). In recent decades, India has experienced significant changes in its social and economic landscape, resulting in a gradual decline in the prevalence of joint families. Modernization, urbanization, and economic liberalization have driven a shift towards nuclear families, especially in urban areas. This transition reflects a move away from traditional collective living arrangements toward smaller, more independent family units. Economic factors such as increased mobility, rising living costs, and the pursuit of individual aspirations have further fueled this shift (Sharma & Kaur, 2017).

The rural-urban distribution is a key characteristic of any population, as the traits associated with rural areas differ significantly from those of urban regions. The definition of "urban population" varies across countries, depending on local conditions and specific criteria (Goel, 2022). Higher household income, education, and urban living significantly increase the likelihood of nuclear family structures. In contrast, traditional social groups and self-employment are linked to the continued presence of joint families, especially in rural areas (K. Singh & Singh, 2024). Economic activities in urban areas play a significant role in determining the size of urban households. In contrast, rural household size is influenced by literacy rates, which also impact population growth in rural regions. Urban households in Haryana are only slightly smaller than rural households. In both urban and rural areas, joint families are quite common, resulting in only a small difference in household size (A. K. Singh, 2019). Also, Human resources play a crucial role in driving rapid economic growth. The significant improvement in social and economic indicators highlights progress in areas such as education, health, industry, and infrastructure. However, disparities in demographic indicators reflect the underlying patterns of society in various ways. The declining sex ratios in India have long been a serious concern, and recent data and projections should raise further alarm (Nisha et al., 2016).

Although economic growth, as reflected in the expansion of gross national product and related variables, serves as a fundamental driver of the overall development process, the primary objective of development should centre on enhancing human capabilities. Despite achieving rapid progress in social and economic indicators, significant disparities persist in Haryana's social development metrics, particularly in areas such as literacy, sex ratio, and urbanization. The status of women in Haryana remains concerning, with

the female-to-male population ratio being notably unfavourable. Female feticide represents one of the most severe forms of violence against women, depriving them of their fundamental and inherent rights. A deeply entrenched patriarchal culture, perpetuated by institutions like khap panchayats, has hindered the adoption of more progressive and inclusive social norms. Furthermore, despite its economic prosperity, the state continues to lag behind in literacy and urbanization levels (Bala, 2017).

Socially, Haryana has made significant progress in enhancing education and healthcare. The expansion of access to schools and medical facilities has led to improvements in human development indicators. However, gender disparities, especially in the sex ratio, continue to be a concern, emphasizing the need for focused interventions and awareness campaigns to challenge deep-seated societal norms (Garg et al., 2023).

Demographically, Haryana's population has grown and urbanized, bringing both opportunities and challenges. The state's youth population represents a valuable workforce, but it is crucial to provide quality education and employment opportunities to fully capitalize on this demographic advantage. Tackling demographic issues, such as imbalanced sex ratios, requires focused efforts to shift societal attitudes and promote gender equality (Garg et al., 2023).

LITERATURE REVIEW

The demographic transition consists of five phases: pre-transition, declining mortality with rising fertility and increasing population, a peak in population growth, declining population growth, and finally, post-transition. During this process, population growth is not evenly distributed across age groups, with those aged 65 and above experiencing greater growth compared to other age groups (Chesnais, 1990).

Many developed countries experienced the demographic transition stage even before realizing the demographic dividend, resulting in a sudden shift from high fertility and mortality rates to lower ones. This transition leads to two key outcomes: an increasing working-age population and a decrease in fertility rates (Munir & Shahid, 2020). Moreover, it is a time-dependent process where demographic change is a focal point. During this transition, an agricultural society evolves into an industrial one (Bongaarts, 2009).

Over the past 30 years, many developing nations have implemented policies aimed at reducing fertility rates. The available resources have been influenced by the unavoidable consequences of this decline, which in turn affects the socioeconomic development and political stability of the country (Brinker & Amonker, 2013).

In fact, fertility is the most significant factor influencing demographic structure, while higher life expectancy alters the population age distribution by increasing the

proportion of young individuals (Munir & Shahid, 2020). Infant and child mortality rates are important determinants of fertility rates. Additionally, the level of women's education significantly influences fertility, affecting both child and maternal health. Furthermore, lower fertility rates allow mothers to have more time available for themselves and their families (Lockwood, 1995). However, the relationship between mortality and fertility is complex. This is why many economic theories suggest that the focus should be on ensuring a certain number of surviving children rather than just the number of births. Child survival rates have improved due to enhanced child welfare and healthcare facilities (Lee, 2003).

The factors influencing demographic transition include the uneven effects of per capita income on household income and the opportunity cost of raising children. As income increases, fertility rates decline because the positive income effect is outweighed by the negative substitution effect created by the opportunity cost of child-rearing. Despite rising income levels, which lead to higher investments per child, fertility decreases because the income elasticity of child quantity is lower than that of child quality (Galor, 2005). However, productive investments are essential for a country's economic growth and development, with savings serving as a crucial source of investment. Several factors, including the total, youth, and old age dependency ratios, female participation in the labor force, and urbanization, influence the savings rates of a transitioning economy. Given the vital role savings play in development, policymakers should create strategies to encourage increased savings (Doker et al., 2016).

However, the transition leads to changes in the population's age structure (Ye, 2011). There are several implications of population aging on economic growth. Throughout the life cycle, factors such as savings, productivity, and labor supply fluctuate. The age structure of the population significantly impacts economic growth; larger working-age cohorts can boost growth, while sizable elderly and youth populations may hinder it (Bloom et al., 2010). A "window of opportunity" arises when the growth rate of the working-age population exceeds that of the total population. This increase in the share of the working-age population is referred to as the "demographic dividend." (U. Kumar, 2013).

During demographic transition, the population undergoes various size and age changes that can create both economic, social, and demographic opportunities as well as challenges. These opportunities are referred to as a "window of opportunity," but the demographic dividend does not arise automatically due to the transitional nature of this phase. The dividend manifests through several channels, including an increased labor force, higher investments in education, smaller family sizes, enhanced human capital, and a larger taxable population (Islam, 2016).

However, this large working-age population leads to higher per capita output, known as the demographic dividend, although it is a temporary phase. Additionally, the working-age population generates and saves more compared to their consumption, while both the young and older populations tend to consume more and have limited savings. The transition process also impacts human capital investment, including improvements in life expectancy and health measures (Ahmad & Khan, 2018).

The impact of a growing population on economic growth has long been a topic of discussion. Economic growth tends to be slow when the growth rate of the working-age population is lower than that of the overall population. In contrast, growth is more rapid when the working-age population outpaces total population growth. Therefore, we can conclude that economic growth is influenced by population dynamics. However, it is not the entire population that drives economic performance; rather, it is the distribution of age within the population that plays a crucial role in fostering economic growth (Bloom & Williamson, 1998).

Haryana

Population growth is closely linked to economic and social development. Its distribution and expansion are influenced by various factors, including physical, socio-cultural, economic, and political conditions. Also the decadal growth rate is a crucial component of census analysis (Bala, 2017). The rate of population growth serves as a sociological indicator of the progress of a nation, region, or society. Rapid population growth in a region reflects its level of economic and educational development (Virender Singh, 2023).

It is commonly believed that population aging results from a decline in mortality or an increase in life expectancy at birth. While the latter is a contributing factor, the primary reason for the growing proportion of elderly people is not a decrease in mortality but rather a decline in fertility. Without a reduction in fertility, a decline in mortality alone would typically lead to a younger population distribution, as the age pattern of mortality decline tends to benefit younger age groups more than the elderly. In contrast, a decline in fertility directly affects the number of births, which influences the age distribution of the population more rapidly (S. Bisht, 2018). Although Birth registration in India is not uniformly distributed across regions and varies significantly from village to village. Vital events in India, particularly in rural areas, are often underreported for various reasons. One notable factor is the disparity in death registration rates between males and females, which appears to be influenced by property transfer practices, leading to higher registration rates for males and lower rates for females in many Indian states (Mal et al., 2020).

Urbanization in Haryana

Haryana has traditionally been a predominantly rural state, with a significant portion of its population

engaged in agricultural activities. However, the partition of India in 1947 accelerated the process of urbanization in the region, as a large influx of refugees settled in towns and camps within Indian Punjab. By 1961, Haryana's urban population had risen to 17.22 percent. The Haryana Urban Development Authority (HUDA) further advanced urbanization by establishing new residential and industrial sectors in areas such as Panchkula, Ambala, Pipli, Shahabad in Kurukshetra, Kundli, Murthal, and Manesar in Sonapat.

The high rate of urban growth in Haryana can be attributed to the agricultural development brought about by the Green Revolution, along with the emergence of mandi towns due to agricultural surpluses. By 2001, 28.92 percent of the population resided in urban areas, a figure that increased to 34.79 percent by the 2011 census. Approximately 70 percent of Haryana's urban population is concentrated in the eastern part of the state, compared to just 30 percent in the western part. In the eastern region, urbanization is particularly high along the G.T. Road (NH1) corridor from Ambala to Delhi, driven by factors such as economic diversification, agricultural prosperity, and well-developed transportation infrastructure (Bala, 2017).

As social norms shift toward smaller family sizes, the availability of new technologies has made it easier for parents to achieve their goals. However, addressing this issue requires strong action from state authorities and a mass movement to change the mindset of the patriarchal society. The society is deeply rooted in a strong preference for sons, with social customs and traditions strongly favoring male children. Sons are viewed as earners and as those who bring wealth to the family through dowry at the time of marriage. The recent decline in the child sex ratio is primarily due to an increase in the number of male births, largely attributed to the widespread use of medical technology to determine the sex of the baby in the womb. As a result, Haryana has the lowest child sex ratio in India, making it one of the states most affected by this alarming trend. The ongoing decline in the child sex ratio is a clear reflection of gender bias in the state. It is important for people to realize that girls are valuable assets, not burdens, to the family (Kumari, 2015).

Sex ratio in Haryana

Sex composition refers to the ratio of males to females in a population. It not only influences demographic processes but also shapes the socio-economic dynamics within a community. The balance between males and females across different age groups has a significant impact on both the current and future social and economic conditions. Sex ratio is a key social indicator used to assess the level of gender equity between males and females in a society at a specific point in time. Fluctuations in the sex ratio often reflect the underlying socio-economic and cultural dynamics of a society in various ways (Chauhan et al., 2016). The sex ratio is typically defined as the number of females per thousand males. Following Haryana's establishment as a state in

1966, its sex ratio stood at 867 females per thousand males in 1971. By 2001, this figure had declined to 861, marking the lowest sex ratio among all Indian states. Although the 2011 census recorded an improvement, with the sex ratio increasing to 877 females per thousand males, Haryana still ranked the lowest nationwide.

The increasing mortality rate of girl children has further exacerbated the issue. The low sex ratio in Haryana is primarily attributed to female infanticide in rural and less educated communities, coupled with the low status of women. Societal preference for sons stems from various economic, social, and religious factors, including financial support, property inheritance, dowry practices, family lineage, societal prestige, power dynamics, and the fulfillment of birth and death rituals, along with religious obligations. This ingrained discrimination has been exacerbated by the advent of prenatal sex determination technologies, leading to female foeticide.

The 2011 census also revealed a disparity between rural and urban areas, with a slightly higher sex ratio of 880 females per thousand males in rural regions compared to 871 in urban areas (Bala, 2017).

The low sex ratio in Haryana can be attributed to factors such as the neglect of the girl child, sex-selective abortions, female infanticide, and high maternal mortality rates. To address this, greater efforts are needed to shift societal attitudes towards women. Influential figures such as religious leaders, women achievers, and prominent personalities should actively participate in campaigns to combat the discrimination of girl children and improve the sex ratio in Haryana (Vipin & Anamika, 2018). Monitoring the sex ratio can aid in developing and implementing policies to address imbalances and improve gender equity (K Rao & V.V, 2014).

Literacy in Haryana

The proportion of literate individuals in a population is referred to as the literacy level, while the process of spreading literacy throughout society is known as literacy transition. Literacy is linked to all forms of development, equipping individuals to fully participate in a rapidly evolving social and economic environment. A well-educated person is more likely to secure quality employment, earn higher wages, enjoy a longer and healthier life, and contribute to a cleaner, more sustainable environment. While overall progress in literacy is crucial for a country, equally important is its equitable distribution across all regions—towns and villages, social classes, and both genders (Vishal Singh, 2015).

Literacy is closely linked to all forms of development, preparing individuals to fully engage in a rapidly evolving social and economic landscape. A better-educated person is more likely to secure quality employment, earn higher wages, enjoy a longer and healthier life, and contribute to a cleaner, more sustainable environment. While overall progress in literacy is essential for a country, equally important is its equitable distribution across towns, villages, social classes, and both genders. The level of literacy varies significantly across regions and communities, influenced by socio-economic and demographic factors, as well as the extent and nature of modernization, urbanization, and industrialization (Vishal Singh, 2017). Literacy plays a crucial role in social development, enhancing quality of life, and building a skilled workforce for economic progress. It significantly impacts various demographic factors, including fertility, mortality, and mobility, and is strongly correlated with life expectancy. According to the Census of India, a literate individual is defined as someone who can read and write with comprehension in any language, while children below the age of six are categorized as illiterate. Haryana's literacy rate has shown consistent growth, rising from 25.71% in 1971 to 37.13% in 1981, 55.85% in 1991, and reaching 68.59% in the 2001 census. In the 2011 census, Haryana ranked 15th among Indian states with a literacy rate of 76.64%. However, despite economic advancements, the state struggles with literacy challenges due to factors such as gender biases, inadequate educational facilities, poverty, and the low societal status of women. The prevailing societal attitudes toward education are shaped by traditional value systems, and a significant portion of the population is engaged in agriculture, where formal education is often deemed unnecessary (Bala, 2017).

Objective

- To analyse the demographic profile of Haryana over past few years.
- To analyse the social scenario of Haryana.
- To analyse the economic scenario of Haryana.

DATA BASE AND METHODOLOGY

This study relies solely on secondary data, which has been sourced from Haryana Statistical Abstract, Sample Registration System- Statistical Report, Economic Survey of Haryana, National Family Health Survey. The representative variables used for study are: Birth Rate, Death Rate, Infant Mortality Rate, Employment, Sex Ratio, Working Age Population, Revenue, State Domestic Product, Per Capita Income, Fertility Rate, Health Institutions and Educational Institutions. For representation of data, tables and graphs are used.

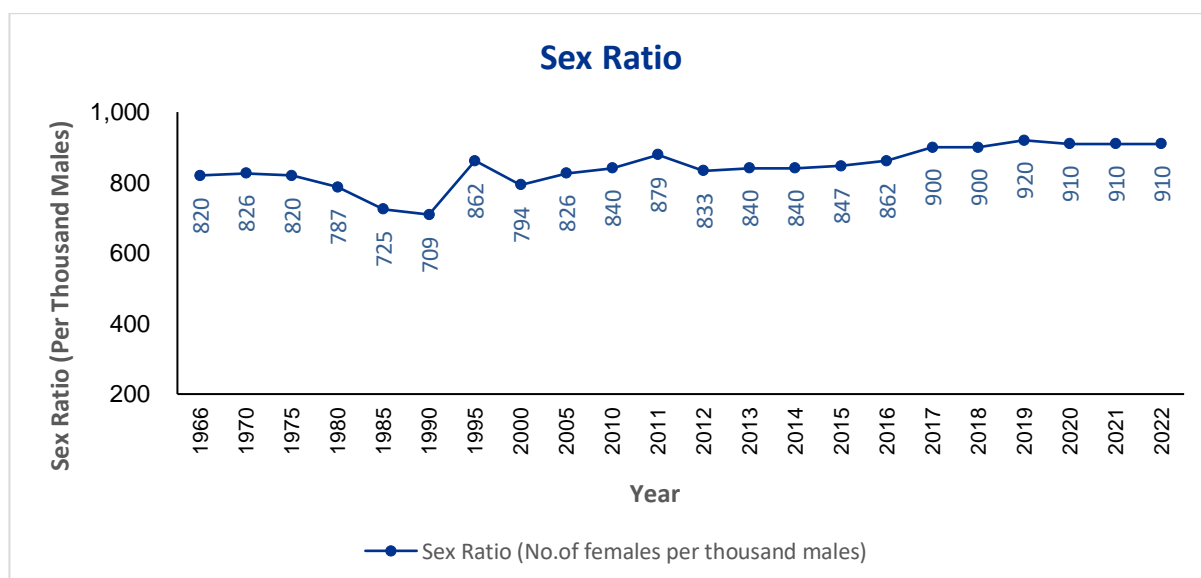
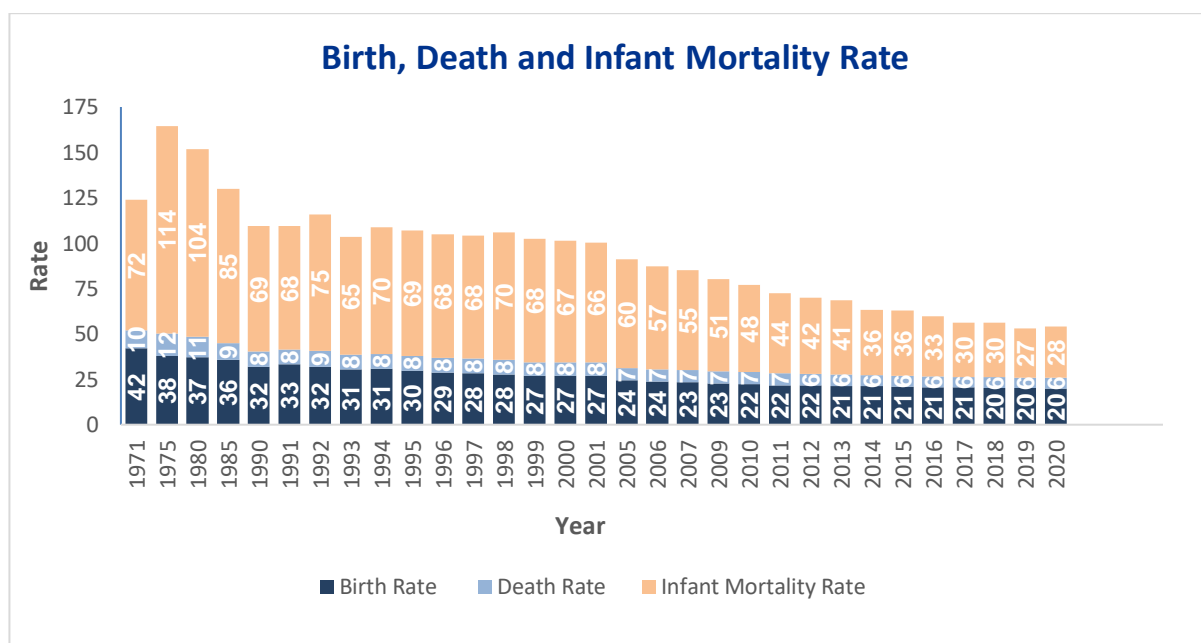
RESULT & ANALYSIS

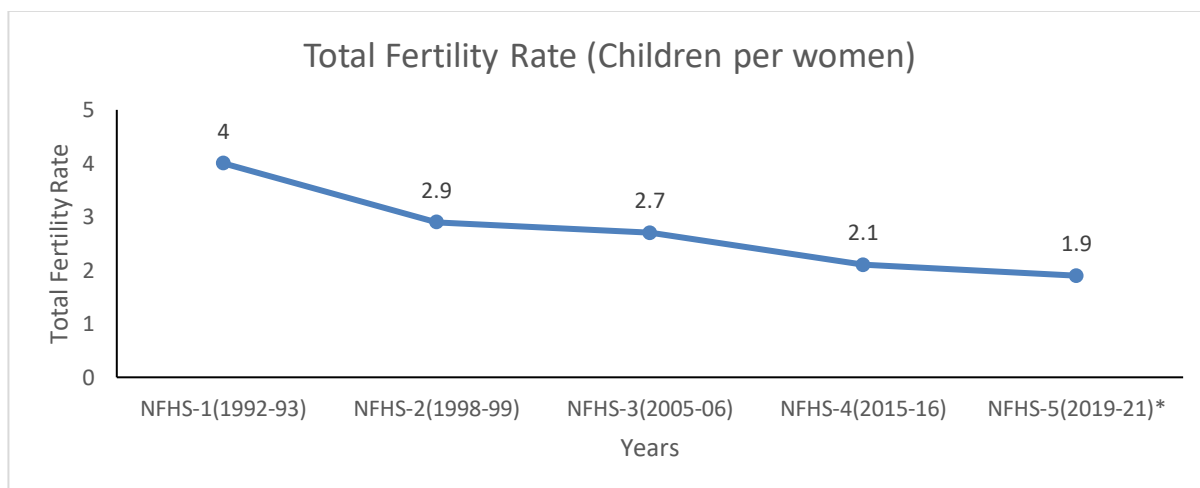
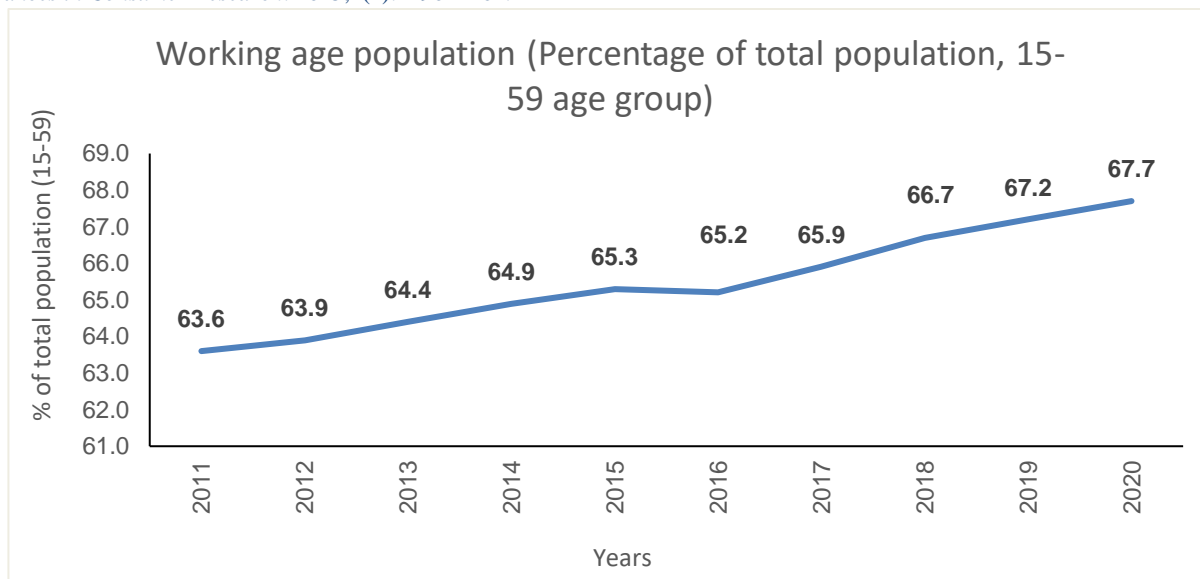
The analysis is done in three parts: social, economic, and demographic scenario of Haryana. The representative variables are grouped in different parts. This grouping reflects the focus of each variable in its respective domain: social factors deal with quality of life and public services, economic factors relate to financial and labor metrics, and demographic factors describe population characteristics.

Analysis of Haryana's demographic profile:

- The birth rate was around 30 per 1000 in the early 1970s, declining to approximately 20 per 1000 in the mid-2010s, and remaining around that level in recent years.
- The death rate has also declined, from about 10 per 1000 in the early 1970s to around 5-7 per 1000 in recent years.
- The infant mortality rate has decreased significantly from over 100 per 1000 in the early 1970s to below 50 per 1000 in recent years.
- Sex Ratio: The sex ratio was approximately 870 in the early 1970s, reaching its lowest point at about 860 around 2001, and then increasing to about 880 in the most recent years shown. This indicates a historical imbalance, with a recent improvement.
- Working-Age Population: The working-age population has increased from about 62% in the early 2000s to almost 70% in the most recent years shown. This suggests a growing potential for economic development due to a larger workforce.
- Total Fertility Rate: The total fertility rate has declined from almost 5 children per woman in the early 1970s to below 3 children per woman in the most recent period of measurement. This reduction in fertility is a key component of demographic transition.

These statistical trends indicate that Haryana is undergoing a demographic transition, marked by declining birth and death rates, improving sex ratios, a growing working-age population, reduced fertility rates, and an expansion of both health and educational infrastructure.

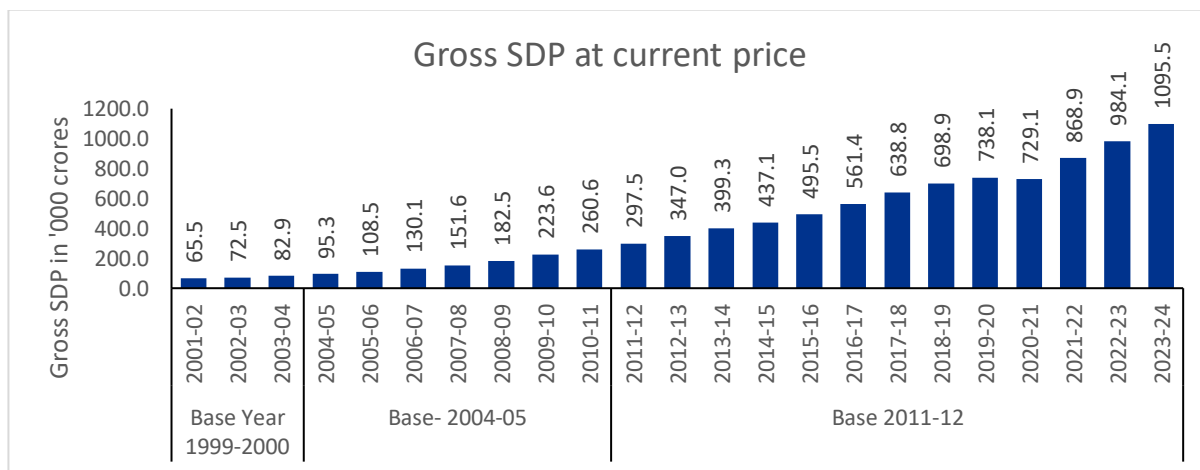
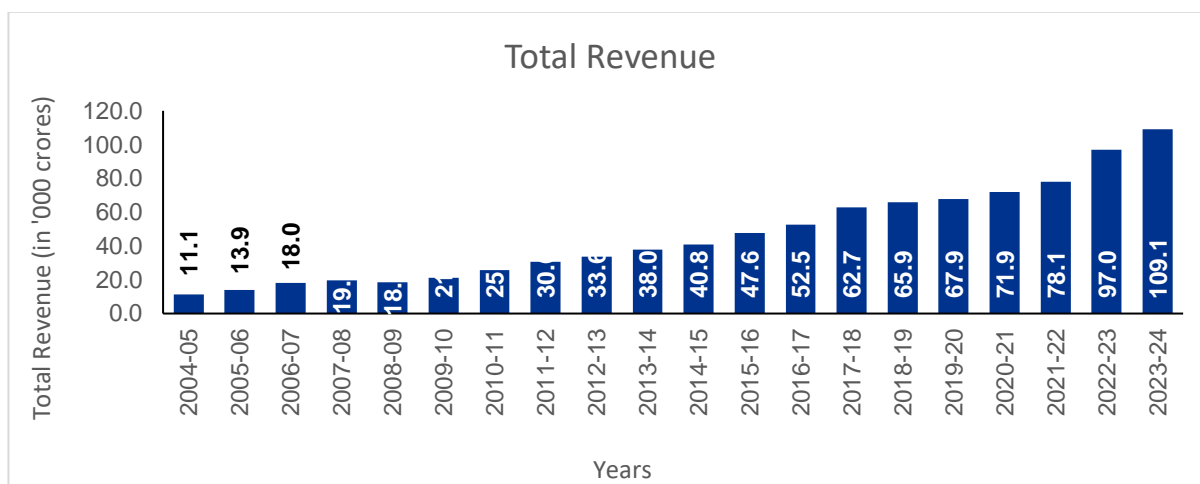
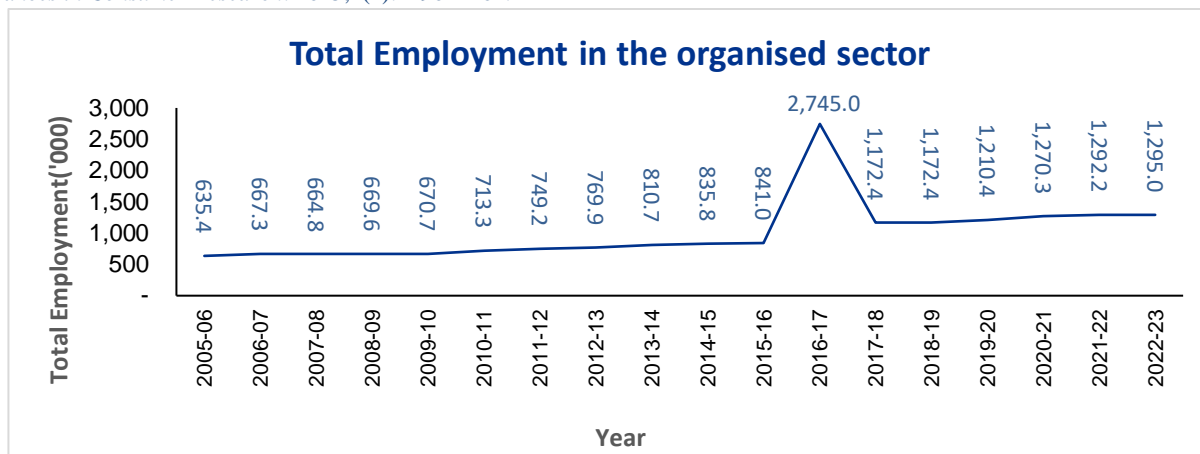


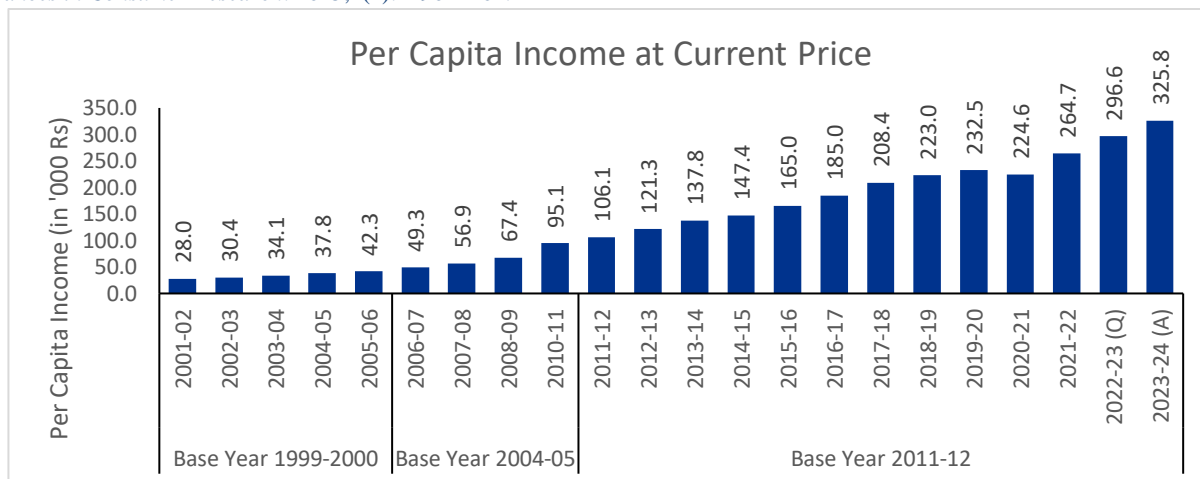


Analysis of Haryana's economic profile:

- **Employment:** Total employment in the organized sector has grown from less than 200,000 in the late 1960s to around 900,000 in the most recent years. This indicates a significant increase in formal employment opportunities over time.
- **Revenue:** Total revenue has grown from around 60,000 crores in 2004 to over 1,000,000 crores in 2024. This demonstrates a substantial increase in the state's financial resources over the two decades.
- **Gross State Domestic Product (SDP):** The Gross State Domestic Product has increased from around 25,000 crores in 2001 to around 325,000 crores in 2023. This reflects significant economic growth in Haryana during this period.
- **Per Capita Income:** Per capita income increased from around 25,000 Rs in 2001 to around 230,000 Rs in 2023. This indicates a notable rise in the average income of individuals in Haryana, suggesting improved living standards.

These statistical trends and observations indicate a clear pattern of economic progress in Haryana. There is substantial growth in employment, revenue, state domestic product, and per capita income. The state is undergoing a transition from an agrarian economy to one based on industry and services. This is also apparent in the urbanization trends in Haryana.



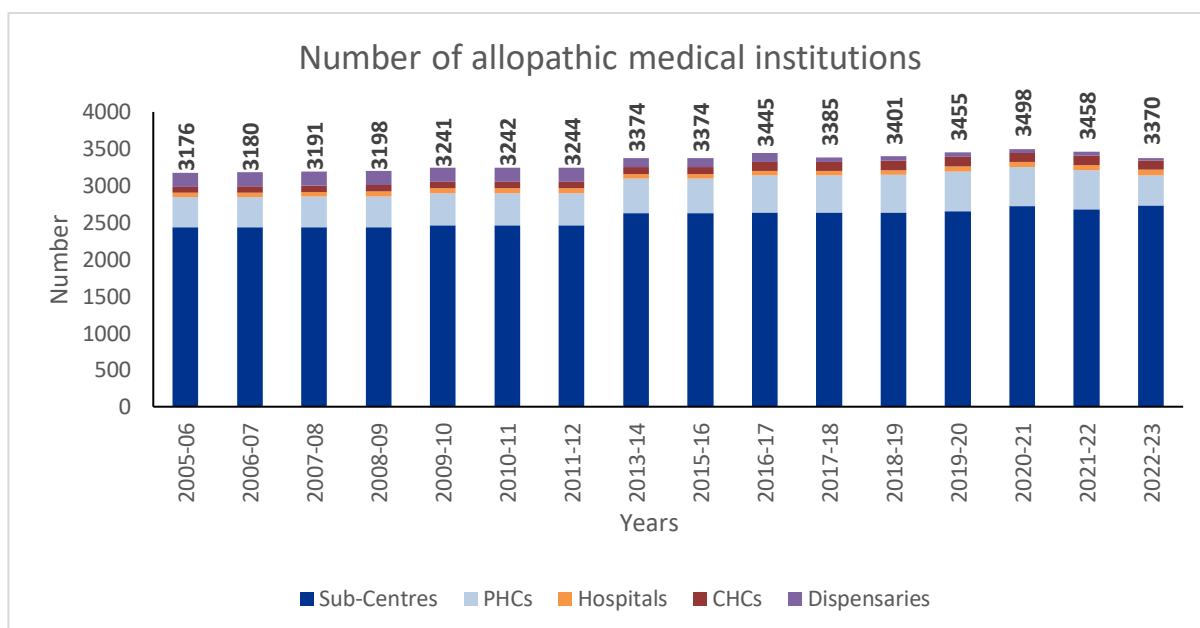


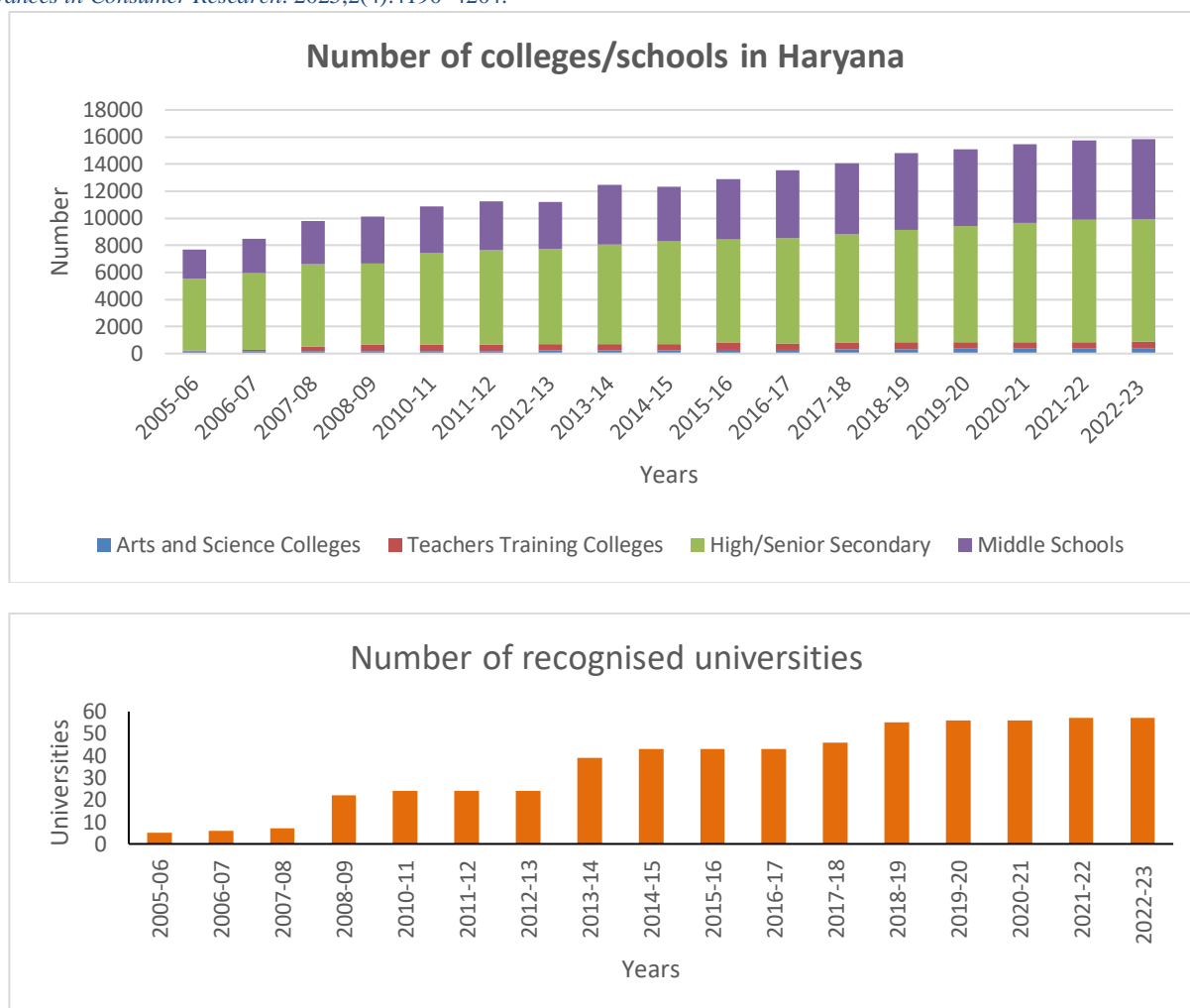
Analysis of Haryana's social profile:

Medical Institutions: There are more sub-centers than any other type of medical institution, followed by PHCs, hospitals, CHCs, and dispensaries. The number of all types of medical institutions has increased over time, which indicates an increase in healthcare infrastructure.

Educational Institutions: There are more high/senior secondary schools than other types of educational institutions, followed by middle schools, then arts and science colleges. The chart also includes data for teacher training colleges and the number of recognized universities. The increases in all of these types of educational institutions show increases in educational access over time.

These statistical trends and observations highlight several important aspects of Haryana's social profile.





The state has made progress in literacy and education, however, it also faces significant challenges related to gender inequality, particularly the imbalanced sex ratio. The transition from traditional family structures to nuclear families is underway, especially in urban areas. The state is also undergoing rapid urbanization, with most of the growth concentrated in the eastern part of the state. These social trends are complex and influenced by various cultural, economic, and historical factors.

Analysis on the basis of some reports from Economic Survey of Haryana.

Summary of Haryana's Demographic Profile (1901-2024)

Haryana's demographic landscape has undergone significant changes from the early 1900s to 2024, reflecting trends in population growth, rural-urban distribution, sex ratio, population density, vital statistics, socio-economic indicators, workforce participation, and literacy rates. The statistical data provides a foundation for analyzing Haryana's developmental trajectory.

1. Population Growth and Size

Haryana's population has consistently increased over the decades. It grew from 4.62 million in 1901 to 25.35 million in 2011, with a further rise to 30.26 million in 2023-24. The highest decadal growth rate of 32.22% was recorded between 1961 and 1971, reflecting rapid expansion. Between 2001 and 2011, the growth rate was 19.90%. The estimated population for 2021 was 23.99 million, indicating a consistent annual growth rate of 1.4%.

2. Rural-Urban Distribution

Haryana remains predominantly rural, although urbanization has increased. In 2011, 65.12% of the population lived in rural areas (16.51 million), while 34.88% resided in urban areas (8.84 million). The sources also provide district-wise data on the rural-urban population split by sex.

3. Sex Ratio Trends

The overall sex ratio (females per 1,000 males) has fluctuated over time. It was 867 in 1901, dropped to 835 in 1911, improved to 861 in 2001, and further increased to 879 in 2011. District-level variations in the sex ratio at birth highlight gender imbalances in certain areas.

4. Population Density

Haryana has experienced increasing population density, reaching 573 persons per square kilometre in 2011. Estimated figures for 2021 indicate a continued rise, reflecting urban expansion and migration patterns.

5. Vital Statistics

- Birth Rate: Haryana's birth rate has declined significantly from 42.1 per 1,000 population in 1971 to 22.3 in 2010, and further down to 19.9 in 2020.
- Death Rate: The death rate has also declined from 9.9 per 1,000 in 1971 to 6.6 in 2010 and 6.1 in 2020, indicating improvements in healthcare.
- Infant Mortality Rate (IMR): A major achievement in Haryana's health sector has been the decline in IMR from 72 per 1,000 in 1971 to 48 in 2010, and further to 27 in 2020.

6. Socio-Economic Indicators

- Per Capita Income: Haryana's per capita income has grown significantly, from ₹343 in 1966-67 to ₹57,797 in 2010-11, and further to ₹185,490 in 2022-23.
- Gross State Value Added (GSVA) Growth: Sectoral data shows agriculture sector growth at -0.9% in 2021-22 and 4.4% in 2023-24, reflecting fluctuations in the economy.

7. Workforce Participation

The workforce participation rate in 2011 was 32.98% overall, with 31.21% in rural areas and 35.20% in urban areas. The data highlights regional disparities in employment opportunities.

8. Literacy Rate

Haryana's literacy rate in 2011 was 67.91%, with a higher literacy rate for males (78.49%) compared to females (55.73%), indicating persistent gender disparities in education.

9. Key Data Sources and Limitations

The primary sources of data include the Department of Economic and Statistical Affairs, Haryana, and the Directorate of Census Operations, Haryana. Statistical Abstracts are presented annually to the Haryana Vidhan Sabha, providing an ongoing record of demographic and economic trends.

However, the available data primarily focuses on population size and economic indicators rather than a detailed demographic analysis, such as age structure, migration patterns, or social stratification. While some records date back to 2004-05, the most consistent series begins in 2011-12.

CONCLUSION

Haryana has witnessed consistent population growth, urbanization, and economic progress over the years. The sex ratio has improved, and birth and death rates have declined, reflecting advancements in healthcare. The state's per capita income has increased significantly, and workforce participation remains stable. However, gender disparities in literacy and employment persist. While economic indicators are well-documented, a more detailed demographic analysis is needed for a comprehensive understanding of Haryana's socio-economic dynamics.

Summary of Haryana's Economic Profile (1966-2024)
Haryana has transformed from an agrarian economy at its formation in 1966 to a dynamic industrial and services-based economy in 2024. The state has consistently experienced high economic growth, structural shifts in its Gross State Domestic Product (GSDP) composition, and rising per capita income, supported by targeted government policies and investments.

1. Economic Growth and State Income

Haryana's economy has grown at an average annual rate of 6.4% from 1966-67 to 2004-05. Between 2005-06 and 2012-13, the growth rate increased to 8.8%,

surpassing India's 8.0% growth during the same period. Haryana's contribution to India's GDP rose from 3.4% in 2011-12 to 3.9% in 2022-23.

The GSDP at current prices increased from ₹95,795 crore in 2004-05 to ₹3,05,405 crore in 2011-12, reaching ₹10,95,535 crore in 2023-24. At constant (2011-12) prices, the GSDP in 2023-24 was ₹6,34,026 crore, with an annual growth rate of 8.0%. The pandemic (2020-21) caused a temporary decline in growth, but the economy rebounded in subsequent years.

The Net State Domestic Product (NSDP) at current prices rose from ₹86,222 crore in 2004-05 to ₹2,78,295 crore in 2011-12, reaching ₹5,61,368 crore in 2023-24.

2. Rising Per Capita Income

1. Haryana's per capita income has consistently increased, reflecting improved living standards.
2. 2011-12: ₹1,16,408
3. 2022-23: ₹2,96,685 (current prices), ₹1,81,961 (constant prices)
4. 2023-24: ₹2,96,592 (current prices), ₹1,85,490 (constant prices)
5. At formation (1966): ₹608

3. Sectoral Contributions to Economic Growth

- Haryana's economy is divided into three sectors:
- Primary (Agriculture, Forestry, Fishing)
- Secondary (Manufacturing, Electricity, Construction)
- Tertiary (Services, Trade, Transport, Finance, IT)
- Over the years, Haryana has shifted from an agrarian economy to an industry and services-driven economy.
- 1969-70: Agriculture contributed 60.7% to GSDP, followed by Services (21.7%) and Industry (17.6%).
- 2022-23: Agriculture's contribution declined, while Industry and Services grew significantly.
- Key sectoral growth highlights:
- Agriculture & Allied GVA (2022-23, current prices): ₹1,68,659 crore
- Industry GVA (2023-24, current prices): ₹2,60,533 crore
- Services GVA (2023-24, current prices): ₹4,34,719 crore

The services sector is now the largest contributor to the economy, with robust growth in financial services, IT, real estate, trade, and transport. The manufacturing sector has also expanded, especially in automobiles, petrochemicals, and food processing.

4. Key Economic Activities

- Agriculture: Despite declining share in GSDP, remains significant. GVA from crops in 2022-23 was ₹86,125 crore, and from livestock ₹74,542 crore.
- Industry: Haryana is India's largest automobile hub, contributing significantly to national vehicle production.
- Financial Services: The GVA in 2023-24 (current prices) was ₹54,00,649 lakh.
- Transport & Communication: Contributes significantly to the services sector.
- Fishing & Forestry: Smaller but growing segments.

5. State Finances & Investments

- The government budget plays a critical role in economic planning, infrastructure development, and social welfare. Haryana has consistently increased spending on education, healthcare, and employment generation.
- Haryana's investment climate has improved due to policy reforms and industrial incentives, including:
- Haryana Enterprises & Employment Policy-2020 (HEEP-2020): Aims to attract ₹1 lakh crore investment and create 5 lakh jobs.
- Haryana Electric Vehicle Policy-2022: Supports EV manufacturing and infrastructure.

- Sector-Specific Policies: Covering agri-business, food processing, logistics, pharmaceuticals, and warehousing.

6. Infrastructure & Economic Reforms

Haryana is investing in industrial parks, highways, and smart cities to sustain growth. The state has developed progressive business policies to attract domestic and foreign investment.

The "Vision 2030 Document" aligns Haryana's policies with Sustainable Development Goals (SDGs) in collaboration with the United Nations Development Programme (UNDP).

7. Summary of Economic Performance

- Consistent high economic growth (~8-9%) since 2005-06.
- Shift from agriculture to industry and services.
- Steady rise in per capita income and improved living standards.
- Government policies focusing on investment, employment, and sectoral growth.
- Strong infrastructure development to support industrial expansion.

CONCLUSION

Haryana has successfully diversified its economy, transitioning from an agriculture-dependent state to a modern industrial and service hub. The GSDP has grown significantly, per capita income has surged, and sectoral contributions have evolved, with the services sector emerging as the dominant force. Government policies and investments in key industries ensure Haryana's sustained economic development, positioning it as one of India's fastest-growing states. Summary of Haryana's Social Profile (1901-2024)

The state has made significant progress in living standards, literacy, healthcare, and infrastructure, though challenges remain in areas like employment generation, and sustainable development, Living Standards and Economic Well-being.

1. Education and Literacy

- Haryana has made steady progress in literacy, but gender disparities remain.
- 2011 Literacy Rate: 67.91% (Male: 78.49%, Female: 55.73%).
- Education infrastructure has expanded, with district-wise literacy tracking, school enrolments, and vocational training programs improving employability.

2. Healthcare and Social Security

Haryana has seen major improvements in healthcare indicators:

- Birth rate declined from 42.1 (1971) to 19.9 (2020).
- Infant mortality rate fell from 72 (1971) to 27 (2020).

- Government programs like Anganwadi, antenatal care, and Jal Jeevan Mission have expanded healthcare access, but rural healthcare gaps still exist. Crime statistics, police coverage, and social security schemes like PMJDY, PMSBY, and PMJJBY show increased financial inclusion and safety nets for vulnerable populations.

3. Employment and Skill Development

The working population share was 32.98% in 2011, with higher urban employment rates. Haryana has focused on job creation and skill development, tracking youth vocational training and employment exchange services. Wage data for agricultural and skilled laborers is also monitored, helping shape labor policies.

The Haryana Enterprises & Employment Policy-2020 (HEEP-2020) aims to attract ₹1 lakh crore in investment and generate 5 lakh jobs, aligning workforce needs with industrial and service sector growth.

4. Infrastructure and Cooperative Development

Haryana has improved road connectivity, electrification, and banking access, enhancing economic participation. Cooperative societies (agriculture, dairy, construction, etc.) play a key role in rural financial stability and economic self-sufficiency.

5. Social Programs and Development

The government has implemented various social welfare schemes, including:

- Pradhan Mantri Jan Dhan Yojana (PMJDY)
- Pradhan Mantri Suraksha Bima Yojana (PMSBY)
- Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)
- Atal Pension Yojana (APY)
- Jal Jeevan Mission

These programs aim to improve financial inclusion, health insurance, and infrastructure development across the state.

CONCLUSION

Haryana has made remarkable progress in economic and social development, with rising incomes, improved healthcare, and education expansion. However, gender disparity, employment generation, and balanced rural-urban growth remain key challenges. The state's future growth depends on sustainable policies, infrastructure investments, and inclusive development strategies.

Implications:

Several future implications can be drawn from this research paper for Haryana:

1. **Harnessing the Demographic Dividend:** Haryana's increasing share of the working-age population presents a potential for accelerated economic growth, often referred to as a "demographic dividend". The implication is that converting this large working-age cohort into a high-yield labor force is crucial for

maximizing economic development. Failing to provide adequate quality education and employment opportunities for this youth population means missing the chance to fully capitalize on this demographic advantage. Generating employment for the working population share remains a key challenge for the future.

2. **Addressing Persistent Gender Disparities:** Despite some improvement in the sex ratio, historical imbalances and a notably unfavourable female-to-male population ratio persist. This deeply rooted issue stems from a patriarchal culture and son preference. A major future implication is the critical need for focused efforts to shift societal attitudes and promote gender equality to tackle the imbalanced sex ratio. Addressing gender disparities in literacy and employment also remains essential.

3. **Sustaining Economic Growth Amid Structural Shift:** Haryana has successfully transitioned from an agrarian to an industrial and services-based economy. The service sector is now the dominant contributor. The implication is the need to sustain high economic growth through continued investments and effective policies. However, challenges remain, including unequal economic distribution. Policies like the Haryana Enterprises & Employment Policy-2020 (HEEP-2020) are explicitly designed to attract future investment and create jobs, aiming to align workforce needs with sectoral growth.

4. **Managing Urbanization and Rural-Urban Growth:** Haryana is undergoing rapid urbanization, particularly in the eastern part. While urbanization is linked to economic development, a future implication is the need for balanced rural-urban growth. Managing the challenges and opportunities presented by this continued urbanization is crucial for the state's development trajectory.

5. **Strengthening Human Capital and Social Infrastructure:** The state has made progress in healthcare and education, with increasing numbers of medical and educational institutions. However, disparities in social development metrics persist. Future implications include the need to continue enhancing education and healthcare access to improve human development indicators. Addressing literacy challenges related to gender biases, inadequate facilities, and societal attitudes is also necessary.

Conclusion:

Haryana has experienced profound changes in its population characteristics over many decades. The state is undergoing a demographic transition, marked by a shift towards lower birth and death rates. While there has been some improvement in the sex ratio, historical imbalances persist and are a significant concern.

Simultaneously, Haryana's economy has structurally transformed. It has moved from being primarily based on agriculture to one where industry and services play the dominant roles. This economic shift is reflected in significant overall economic progress.

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In terms of social well-being, there has been considerable advancement in living standards, healthcare access, and educational opportunities.

However, despite these gains, the state faces substantial challenges. Significant disparities in social development metrics remain. Critically, gender inequality continues to be a serious issue, reflected in the unfavourable female-to-male population balance. Furthermore, generating enough employment opportunities for the available working population is a key difficulty.

Therefore, while Haryana has achieved remarkable progress economically and socially, its future development hinges on effectively tackling deep-rooted social issues, particularly gender disparity, ensuring more equitable development across all sections of society, and creating adequate employment for its population.

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