



DEMOGRAPHIC DIVIDEND FOR INDIA: A STUDY OF THE TRENDS AND PATTERN IN THE VARIOUS ASPECTS OF INDIA'S 2011 CENSUS FIGURES

Dr. YC IBRAHIM

Associate Professor and Head,
Department of Economics,
Government College Kodenchery,
Kozhikode,
Kerala-673580.
Email: drycibrahim@gmail.com

Abstract

Indian census is the most important source information about different aspect of the country such as demography, economic activity, education and literacy, language, religion and caste and the only source of primary data at ward, village and town level. Both the government and the private agencies use the data for the formulation of policies and strategies for future. The 15th National Census of the country is over and its provisional results are ready for reference and discussion. This study mainly focused on the trends and pattern of various aspects of Indian population such as growth rate, child population, gender composition of population, sex ratio, literacy rate, density etc. based on 2011 census. Even though India's population growth rate is higher than world population growth rate, it is declining now. Child population is less in 2011 as compared with 2001 census shows a fall in fertility. Even though sex ratio is low in India compared with world sex ratio, it increased as per 2011 census. Child sex ratio has declined to reach an all time low of 914, even though over all sex ratio is increasing recently. The declining male female gap in literacy is positive but increasing population density is a threat. At present, India has demographic dividend as compared to developed countries, but it is expected to come down will disappear in the recent one or two decades.

Key Words: Population, demography, child population, gender, sex ratio, density of population

Introduction

The 15th National Census of the country is over and its provisional results are ready for reference and discussion. The Indian Census is the most credible source of information on Demography, Economic Activity, Literacy and Education, Housing and Household Amenities, Urbanization, Fertility and Mortality, Scheduled Castes and Scheduled Tribes, Language, Religion, Migration, Disability and many other socio-cultural and demographic data since 1872. This is the



only source of primary data at village, town and ward level. It provides valuable information for planning and formulation of policies for Central and State Governments and is widely used by National and International agencies, scholars, business people, industrialists, and many more. The delimitation/ reservation of Constituencies- Parliamentary /Assembly / Panchayats and other Local Bodies is also done on the basis of the demographic data thrown up by the Census. Census is the basis for reviewing the country's progress in the past decades, monitoring the on-going schemes of the Government and most importantly, plan for the future. That is why the slogan of Census 2011 is "Our Census, Our Future". In this context, it is worth to discuss the common trends and pattern in the varied aspects of the 2011 census figures.

Objective of the Study

The main objective of the study is to find the trends and pattern in the various aspects of India's 2011 census and to assess the possibility of demographic dividend.

Methodology

The study was exclusively based on the secondary data obtained from official sources. The analysis was based on simple arithmetic.

Indian Population Dynamics

The population of India as per the provisional population totals of Census 2011 was 1,210,193,422 compared to a total of 1,028,737,436 in 2001. In absolute terms, the population of India has increased by more than 181 million during the decade 2001-2011. The absolute addition to the population during the decade 2001-2011 is slightly lower than the population of Brazil, the fifth most populous country in the world.

The estimated global population in 2010 was 6908.7 million. The population of the ten most populous countries of the world is given in Table 1. Population of these 10 countries has all grown over the last decade, except in Russian Federation, which has declined. At present, these ten countries account for nearly three-fifth of the world population. The three most populous ones, namely, China, India and USA, together account for four of every ten persons of the world. At present, a little more than one out of every six persons in the world is from India.



Table 1:

Comparative position of World Population in Major Countries (2011)

Sl.No.	Country	Population (in Million)	% of World Population
1	China	1341.0	19.4
2	India	1210.2	17.5
3	USA	308.7	4.5
4	Indonesia	237.6	3.4
5	Brazil	190.7	2.8
6	Pakistan	184.8	2.7
7	Bangladesh	164.4	2.4
8	Nigeria	158.3	2.3
9	Russian Federation	140.4	2.0
10	Japan	128.1	1.9
	Other Countries	2844.7	41.2
	World	6908.7	100.0

Source: UN Population Fund

The gap between India, the country with the second largest population in the world and China, the country with the largest population in the world has narrowed from 238 million in 2001 to nearly 131 million in 2011. On the other hand, the gap between India and the United States of America, which has the third largest population, has now widened to about 902 million from 741 million in 2001. In 1950, China with 22 per cent share of the world population was the world's most populous country, followed by India, which had a share of 14.2 percent. The population of India is almost equal to the combined population of U.S.A., Indonesia, Brazil, Pakistan, Bangladesh and Japan put together- the population of these six countries totals 1214.3 million!

A point that is striking is that while India accounts for a meager 2.4 per cent of the world surface area, it supports and sustains a whopping 17.5 per cent of the world population. In contrast, the USA accounts for 7.2 per cent of the surface area with only 4.5 percent of the world population. As such, among the ten most populous countries of the world, only Bangladesh has a higher population density compared to India. The United Nations has estimated that the world population grew at an annual rate of 1.23 per cent during 2000-2010. China registered a much lower annual



growth rate of population (0.53 per cent) during 2000-2010, as compared to India (1.64 per cent during 2001-2011). In fact, the growth rate of China is now third lowest among the ten most populous countries, behind Russian Federation and Japan and it is substantially lower than the USA (0.7 percent). With a definite slowing down of population growth in China, it is now estimated that by 2030, India will most likely overtake China to become the most populous country on the earth with 17.9 percent population living here.

World population was transformed in the 20th century as technological and social changes brought steep declines in birth rates and death rates around the world. The century began with 1.6 billion people and ended with 6.1 billion, mainly because of unprecedented growth after 1960. The momentum created by this population growth may carry the world population past 7 billion by 2015. It is almost certain that nearly all future population growth will occur in the developing regions of the world. Urban areas in these regions will absorb most of the additional people. Data shows that the poor tend to have larger families. In the developing countries, a “youth bulge” ensures that the absolute number of births will rise even as couples are having fewer children. At the other extreme, most countries in Europe now have a “youth dearth” after decades of low fertility. Stagnant growth or even population decline is challenging more countries as fewer workers must support expanding pension and social security systems for their aging citizens. Governments have crafted a range of population policies to address these and other issues over the last half-century.

Population Growth in India, 1901-2011

The population of India, at the turn of the twentieth century, was only around 238.4 million. This has increased by more than four times in a period of one hundred and ten years to reach 1210 million in 2011. Interestingly, the population of India grew by one and half times in the first half of the twentieth century, while in the later half it recorded a phenomenal three-fold increase. One of the important features of the present decade is that, 2001-2011 is the first decade (with the exception of 1911-1921) which has actually added lesser population compared to the previous decade. This implies that as a result of the combination of population momentum and somewhat impeded fertility, although India continues to grow in size, its pace of net addition is on the decrease.



Population Growth Rates

It is significant that the percentage decadal growth during 2001-2011 has registered the sharpest decline since independence. It declined from 23.87 per cent for 1981-1991 to 21.54 per cent for the period 1991-2001, a decrease of 2.33 percentage point. For 2001-2011, this decadal growth has become 17.64 per cent, a further decrease of 3.90 percentage points. Similarly, the average exponential growth rate for 2001-2011 has declined to 1.64 per cent per annum from 1.97 per cent per annum during 1991-2001. The average annual exponential growth rate during 1981-1991 was 2.16.

Population: States and Union Territories

Uttar Pradesh continues to be the most populous State in the country with almost 200 million people living here (16 per cent), which is more than the population of Brazil, the fifth most populous country in the world. The combined population of Uttar Pradesh and Maharashtra (the second most populous State), at 312 million, is substantially greater than the population of the USA, the third most populous country of the world. Twenty States and Union Territories now have a population of over ten million. On the other extreme, there are five States and Union Territories in the country that are yet to reach the one million mark. While Uttar Pradesh (199.6 million), Maharashtra (112.4 million), Bihar (103.8 million), West Bengal (91.3 million) and Andhra Pradesh (84.7 million) have all held on to the top five slots in terms of their ranking in 2011 as compared to 2001, Madhya Pradesh (72.6 million), which has moved on to take the sixth position from its seventh position, pushing Tamil Nadu (72.1 million) now to the seventh spot. A little more than six of every ten Indians live in one of these seven States.

Child Population in the Age Group 0-6 Years

The total number of children in the age-group 0-6 years, as per the provisional population totals of Census 2011, is 158.8 million. It is significant that out of the absolute increase of 181 million in the country's population during the decade 2001-2011, 88 per cent has been contributed by the Child Population in the age group of 0-6 years. In Census 2001, the total number of children in the age-group 0-6 years was about 163.8 million, about 5 million more than the number recorded in 2011. This reduction is indicative of a fall in fertility and is a positive sign. Uttar Pradesh, Bihar, Maharashtra, Madhya Pradesh and Rajasthan have the largest number of children in the age group of 0-6 years. Lakshadweep, Daman & Diu, Andaman & Nicobar Islands, Dadra & Nagar Haveli and



Sikkim, on the other hand have the least number of children in the age group 0-6 years. The proportion of Child Population in the age group 0-6 years to total Population is 13.1 per cent while the corresponding figure in 2001 was 15.9 per cent. The decline has been to the extent of 2.8 points. With the exception of Jammu & Kashmir, where the percentage share of children in total population has increased by 1.4 points, all other States and Union Territories have shown a fall in the proportion.

Gender Composition of the Population

“Equality between women and men is a matter of human rights and a condition for social justice and is also a necessary and fundamental prerequisite for equality, development and peace” (*Beijing platform for Action*, UN Fourth Conference on Women). The composition of population by gender is one of the primary demographic characteristics of human population around which meaningful analysis is woven. There are different tools to measure gender equity in a population. Sex ratio is one such widely used tool for cross sectional analysis to measure gender balance. Sex ratio is defined in the Census of India as the number of females per 1,000 males in the population. According to the provisional population totals of Census 2011, the sex ratio of India is 940. The sex ratio at the National level has risen by seven points since the last Census in 2001. This is the highest since 1971. The sex ratio in India has been historically negative or in other words, unfavourable to females.

The composition of population by gender is not uniform and shows diverse patterns across different countries of the world. Table 3 presents the sex ratio in the ten most populous countries in the world during 2001 and 2011. It has been estimated that around the year 2011, the world will have 984 females against 1000 males. As is evident from the Table, in USA, Russian Federation, Japan and Brazil females outnumber males, in the other six countries the balance is tilted towards the males. When compared to the previous decade, China, Indonesia, Nigeria and USA have shown a decline in the sex ratio in the present decade. The decline has been particularly sharp in Nigeria and Indonesia. The sex ratio in USA, Russian Federation and Japan has always remained above unity despite minor variations. The situation in the immediate neighbourhood of India reveals a mixed picture. Myanmar (1048), Sri Lanka (1034) and Nepal (1014) have more females in their populations whereas in all other countries the sex ratio shows male domination.



Table 2:

Sex Ratio in Selected Countries

Sl.No.	Country	2001	2011
1	China	944	926
2	India	933	940
3	USA	1029	1025
4	Indonesia	1004	988
5	Brazil	1025	1042
6	Pakistan	938	943
7	Bangladesh	1140	1167
8	Nigeria	958	978
9	Russian Federation	1041	1055
10	Japan	1016	987
	World	986	984

Source: UN Population Fund

Child Sex Ratio in the Age Group 0-6 Years

While the overall sex ratio presents encouraging trends across the country encompassing 29 States and Union Territories, the same is not true in the case of the girl child in the age group 0-6 years. Table 3 presents the sex ratio of the total population and the child population (0-6 years) from 1961 to 2001.

Table 3:

Sex ratio in India 1961- 2011 (Overall and Child sex ratio)

Year	Sex Ratio in the age group 0-6 years	Overall sex ratio
1961	976	941
1971	964	930
1981	962	934
1991	945	927
2001	927	933
2011	914	940



Source: Indian Census 2011

The table 4 clearly brings out the fact that after 1991 there has been consistent rise in overall sex ratio. On the other hand, the fall in child sex ratio has been unabated since 1961. As per the provisional population totals of Census 2011, it has declined to reach an all-time low of 914. The pattern of child sex ratio (0-6 years) among the States/UTs in 2011 shows that the top three States recording the highest value of child sex ratio in the age group 0-6 years are Mizoram (971), Meghalaya (970) and Chhattisgarh (964). Among the UTs, the top three positions are held by Andaman & Nicobar Islands (966), Puducherry (965) and Dadra & Nagar Haveli (924). The lowest child sex ratio (0-6 years) among the States have been observed in the States of Haryana (830), Punjab (846) and Jammu and Kashmir (859) while among the UTs, Delhi (866), Chandigarh (867) and Lakshadweep (908) occupy the bottom position.

State of Literacy

Literacy level and educational attainment are vital indicators of development in a society. There has been a marked improvement in the proportion of literates in the last decade. Literates in 2011 constitute 74 per cent of the total population aged seven and above as compared to 65 per cent in 2001. In another dimension, illiterates form 26 per cent of the total population in 2011 as compared to 35 per cent in 2001. The effective literacy rate for India in Census 2011, works out to 74.04 per cent. The corresponding figures for males and females are 82.14 and 65.46 per cent respectively. Thus three-fourth of the population of aged 7 years and above is literate in the country. Four out of every five males and two out of every three females in the country are literate. The country has continued its march in improving literacy rate by recording a jump of 9.21 percentage points during 2001-2011. The increase in literacy rates in males and females are in the order of 6.88 and 11.79 percentage points respectively. However, efforts are still required to achieve the target of 85 per cent set by the Planning Commission to be achieved by the year 2011-12. An extremely positive development in the present decade is that the gap of 21.59 percentage points recorded between male and female literacy rates in 2001 Census has reduced to 16.68 percentage points in 2011. Though the target set for the year 2011-2012 by the Planning Commission of reducing the gap to 10 percentage points has not been achieved, it is heartening that the reduction has been to the order of almost 5 percentage points.



Table 4:

The effective literacy rate of India since 1951

Year	Persons	Male	Female	Male-Female Gap
1951	18.33	27.16	8.86	18.30
1961	28.33	40.4	15.35	25.05
1971	34.45	45.96	21.97	23.98
1981	43.57	56.38	29.76	26.62
1991	52.21	64.13	39.29	24.84
2001	64.83	75.26	53.67	21.59
2011	74.04	82.14	65.46	16.68

Source: Indian Census 2011

Kerala ranks first in the country with a literacy rate of 93.91 per cent, closely followed by Lakshadweep (92.28 per cent) and Mizoram (91.58 per cent). Bihar with a literacy rate of 63.82 per cent ranks last in the country preceded by Arunachal Pradesh (66.95 per cent) and Rajasthan (67.06 per cent). Among the major States, Maharashtra (82.91 per cent) comes after Kerala, followed by Tamil Nadu (80.33 per cent). Kerala holds the first rank in the country in female literacy with 91.98 per cent. Rajasthan (52.66 per cent) has recorded the lowest female literacy rate preceded by Bihar (53.33 per cent). Similarly, the States and Union Territories with female literacy rate below the National average (65.46 per cent) are Orissa, Chhattisgarh, Madhya Pradesh, Andhra Pradesh, Arunachal Pradesh, Uttar Pradesh, Jammu and Kashmir, Jharkhand, Bihar and Rajasthan. Lakshadweep (96.11 per cent) holds the first rank in the country with respect to male literacy rate. Kerala (96.02 per cent) ranks second. Bihar (73.39 per cent) has recorded the lowest literacy rate in case of males preceded again by Arunachal Pradesh (73.69 per cent). The States and Union Territories with literacy rates below the National average for males (82.14 per cent) are Madhya Pradesh, Assam, Meghalaya, Arunachal Pradesh, Andhra Pradesh, Bihar, Rajasthan, Jammu and Kashmir, Chhattisgarh, Punjab, Jharkhand and Uttar Pradesh.

DENSITY OF POPULATION

As per the Census 2011, the population density of India has gone up to 382 persons per sq.Km. from 325 persons per sq.Km in 2001. At the beginning of the twentieth century i.e. in 1901 the density of India was as low as 77 persons per sq. km. This steadily increased in each decade to reach 382 per sq.km. High increase in the density of population is a matter of great concern as it



puts immense pressure on our natural resources and existing infrastructural facilities and adversely affects the quality of life. Bihar, West Bengal and Kerala have been ranked I, II and III in the density of population.

Major Findings

The analysis of 2011 census data and its comparison with the previous census data shows the following things

1. The present growth rate of Indian population of India and China shows that, India will overtake China to become the most populous nation by the mid of the third decade.
2. The decrease in the fertility rate of overall population, increase in the sex ratio and the decrease in the gap of male-female literacy are the positive sign of Indian demography.
3. The decrease in the child sex ratio and high increase in the density of population are the threat and negative sign of Indian Demography.
4. At present India has demographic dividend.

Conclusion

The provisional population totals of Census 2011 brings a ray of hope with definite signs that the growth rate of population is tapering off especially in areas where it had been stagnant for several decades. There is also a marked decline in fertility as evidenced by the declining proportion of child population in the age group of 0-6 years. For the world as a whole, demographers are generally confident that by the second half of this century we will be ending one unique era in history – the population explosion – and entering another, in which population will level out or even fall. Population pessimists have warned the congenial optimists, not to believe that humanity will find ways to cope and even improve its lot. A feature of both mortality and fertility transitions has been their increasingly faster tempo. Targeted programmes like those on female literacy, improving general health care, improving female employment rates, minimum years of schooling, advocacy through village groups, etc. is slowly redefining motherhood from childbearing to child rearing. Census 2011 is perhaps an indication that the country has reached a point of inflexion. It is sure that the country has a demographic dividend at present compared to the developed countries, but decrease in the child birth rate and child sex ratio shows that the country will lose it in the coming future.



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