## Web Edition:

PROVISIONAL POPULATION TOTALS
Chapter 3
Census of India 2001
Series 1, India, Paper 1 of 2001

## Chapter 3 <br> Size, Growth Rate and distributionof Population



## Size, Growth Rate and Distribution of Population

According to the provisional results compiled quickly for the Census of India 2001, the population of India at $0: 00$ hours of $1^{\text {st }}$ March, 2001, stood at $1,027,015,247$ comprising of $531,277,078$ males and $495,738,169$ females. Thus, as widely believed and expected, India became only the second country in the world after China to officially cross the one billion mark. It is certainly most unlikely that in the history of mankind any country other than India and China would be shaping the lives and future of over a billion people.

The estimated global population in 2000 was 6055 million. The population of the ten most populous countries of the world are given in Statement 1. Their relative share in the global population is shown in Figure 1.

Statement 1
Population of Selected Countries

| SI. No. | Country | Reference date | Population <br> (in millions) |
| :--- | :--- | :--- | :--- |



```
Note:
            1. For India, USA and Japan the population figures
    are as per the Census
2. Source for other countries: World Population
    Prospects ( mid-year estimates) 1998 Revisions.
    Volume II, Sex and age, United Nations. The estimates
    are medium variant.
```

Although, in terms of population USA ranks third in the world after India, there is a yawning gap of 746 million between the population of these two countries. India accounts for a meagre 2.4 percent of the world surface area of 135.79 million square kms yet it supports and sustains a whopping 16.7 percent of the world population. In 1950, China with 22 percent share of the world population led the scene followed by India, which had a share of 14.2 percent. It is now estimated that by 2050, India will most likely overtake China to become the most populous country on the earth with 17.2 percent population living here ${ }^{1}$.
The United Nations has estimated that the world population grew at an annual rate of 1.4 percent during 1990-2000. China registered a much lower annual growth rate of population (one percent) during 1990-2000, as compared to India (1.9 percent during 1991-2001). In fact, the growth rate of China is now very much comparable to that of the USA ( 0.9 percent). The average annual exponential growth rate for selected countries and the world is depicted in Figure 2.
Statement 2 presents the population of India as recorded in each decadal census since 1901. Some other indicators of growth rate such as decadal growth rate, change in decadal growth, average annual exponential growth rate and progressive growth rate over 1901 during each decade have also been presented in this statement. Thus, the population of India, which at the turn of the twentieth century, was only around 238.4 million increased by more than four times in a period of hundred years to reach 1027 million at the dawn of the twenty first century. 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 almost a phenomenal three-fold increase. Figure 3 shows the decadal growth of population for India during 1901-2001. India's population growth during the twentieth century can be chartered and classified into four distinct phases as follows:

```
1901-1921 : Stagnant population
1921-1951 : Steady growth
1951-1981 : Rapid high growth
1981-2001 : High growth with definite signs of slowing down
```

The story of population growth in India is fairly in tune with the classical theory of demographic transition. During most of the nineteenth century, India witnessed a fluctuating but ultimately more or less a stagnant growth of population, which drifted into the twentieth century until 1921. Thereafter, the country passed through successively all the phases of demographic transition and is now widely believed to have entered the fifth phase, usually characterized by rapidly declining fertility. The crucial question is - how long will this phase extend and when will India achieve a stable population? The National Population Policy (NPP), 2000, recently adopted by the Government of India states that 'the long-term objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environment protection'. It has been assumed in the policy document that the medium-term objective of bringing down the Total Fertility Rate (TFR) to replacement level of 2.1 by 2010 will be achieved. It is envisaged that if the NPP is fully implemented, the population of India should be 1013 million by 2002 and 1107 million by 2010. However, in 2001 itself, India has already

[^0]exceeded the estimated population for the year 2002 by about 14 million. It will no doubt require a Herculean effort on the part of the government and the people to achieve the much-cherished goal of a stable population.

## Statement 2

Population and its growth, India: 1901-2001

| Census <br> years | Population | Decadal Growth |  | Change in decadal <br> growth |  | Average <br> annual <br> exponential <br> growth rate <br> (percent) | Progressive <br> growth rate <br> over 1901 <br> (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Absolute | Percent | Absolute | Percent |  |  |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |


|  | $238,396,327$ |  |  | - | --- | --- | - |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1901 | $252,093,390$ | $13,697,063$ | 5.75 | - | 0.56 | 5.75 |  |
| 1911 | $251,321,213$ | $-772,177$ | -0.31 | $-14,469,240$ | -6.05 | -0.03 | 5.42 |
| 1921 | $278,977,238$ | $27,656,025$ | 11.00 | $28,428,202$ | 11.31 | 1.04 | 17.02 |
| 1931 | $318,660,580$ | $39,683,342$ | 14.22 | $12,027,317$ | 3.22 | 1.33 | 33.67 |
| 1941 | $361,088,090$ | $42,427,510$ | 13.31 | $2,744,168$ | -0.91 | 1.25 | 51.47 |
| $1951^{1}$ | $439,234,771$ | $78,146,681$ | 21.64 | $35,719,171$ | 8.33 | 1.96 | 84.25 |
| $1961^{1}$ | $548,159,652$ | $108,924,881$ | 24.80 | $30,778,200$ | 3.16 | 2.20 | 129.94 |
| 1971 | $683,329,097$ | $135,169,445$ | 24.66 | $26,244,564$ | -0.14 | 2.22 | 186.64 |
| $1981^{2}$ | $843,387,888$ | $163,058,791$ | 23.86 | $27,889,346$ | -0.80 | 2.14 | 255.03 |
| $1991^{3}$ | $1,027,015,247$ | $180,627,359$ | 21.34 | $17,568,568$ | -2.52 | 1.93 | 330.80 |
| $2001^{4}$ |  |  |  |  |  |  |  |

Note:

1. In working out ‘Decadal Growth' and 'Percentage Decadal Growth' for India 1941-51 and 1951-61 the population of Tuensang district for $1951(7,025)$ and the population of Tuensang $(83,501)$ and Mon $(5,774)$ districts for 1961 Census of Nagaland state have not been taken into account as the areas were censused for the first time in 1951 and the same are not comparable.
2. The 1981 Census could not be held owing to disturbed conditions prevailing in Assam. Hence the population figures for 1981 of Assam have been worked out by 'interpolation'.
3. The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu and Kashmir. Hence the population figures for 1991 of Jammu and Kashmir have been worked out by 'interpolation'.
4. Please see note 1 below Figures at a Glance.

In absolute terms, the population of India has increased by a whopping 180.6 million during the decade 1991-2001. The absolute addition to the population during the decade 1991-2001 is more than the estimated population of Brazil, the fifth most populous country in the world. Although, the net addition in population during each decade has increased consistently, the change in net addition has shown a steady declining trend over the decades starting from 1961. While 27.9 million more people were added between the decade 1981-1991 than between 1971-1981, this number declined to 17.6 million for the decades between 1981-1991 and 1991-2001. 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.

The percentage decadal growth during 1991-2001 has registered the sharpest decline since independence. It has declined from 23.86 percent for 1981-1991 to 21.34 percent for the period 1991-2001, a decrease of 2.52 percentage point. The average exponential growth rate for the corresponding period declined from 2.14 percent per annum to 1.93 percent per annum. The percentage decadal growth shown in column 4 of Statement 2 indicates a decline from 24.80 percent during the decade 1961-71 to 24.66 percent during the decade 1971-81, while the average annual exponential growth rate presented in column 7 of this statement shows an increase from 2.20 to 2.22 . This is because the percent decadal variation has not been adjusted for the shift in reference date in 1971. The decadal variation for 1961-71 relates to 121 months while that 197181 relates to 119 months. If we adjust for this difference, the percentage decadal growth works out to 24.59 percent for 1961-71 and 24.87 percent for the decade 1971-81.
Population variables are both determinants and consequences of the development process. Figure 4 attempts to compare the indices of growth of population, Gross Domestic Product at factor cost and foodgrain production over time starting from 1950-51. It helps to understand whether country's economic development and foodgrain production has been able to keep pace with its burgeoning population. The annual exponential growth rate of foodgrain production during 19912000 was 1.9 per cent which just about matched the population growth.

Statement 3 and Figure 5 shows the relative share of population of the States and Union territories to the total population of India as per the Census of India, 2001. The statement also provides the ranking of these States and Union territories by population size in 1991 and 2001. It can be seen that Uttar Pradesh is by far the most populous State in the country with more than 166 million people living here, which is more than the population of Pakistan, the sixth most populous country in the world. The combined population of Utar Pradesh and Uttaranchal (until recently a part of Uttar Pradesh) is greater than the population of Brazil. Nineteen states now have a population of over ten million. On the other extreme there are eight States and Union territories in the country that are yet to reach the one million mark. Almost half of the country's population lives in five States, namely, Uttar Pradesh, Maharashtra, Bihar, West Bengal and Andhra Pradesh. While Uttar Pradesh and Maharashtra have held on to the first two positions in terms of their ranking in 2001 as compared to 1991, Bihar has moved on to take the third position from its fifth position pushing West Bengal and Andhra Pradesh now to the fourth and fifth spots respectively.

## Statement 3

Ranking of States and Union territories by population size : 1991 and 2001

| Rank in <br> 2001 | States/ <br> Union territories* | Population 2001 | Percent to total <br> population of India |  | Rank in <br> 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 3 | 2001 | 1991 |  |


| 1 | Uttar Pradesh | $166,052,859$ | 16.17 | 15.60 | 1 |
| :--- | :--- | :--- | ---: | ---: | :--- |
| 2 | Maharashtra | $96,752,247$ | 9.42 | 9.33 | 2 |
| 3 | Bihar | $82,878,796$ | 8.07 | 7.62 | 5 |
| 4 | West Bengal | $80,221,171$ | 7.81 | 8.04 | 3 |
| 5 | Andhra Pradesh | $75,727,541$ | 7.37 | 7.86 | 4 |


| 6 | Tamil Nadu | 62,110,839 | 6.05 | 6.59 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | Madhya Pradesh | 60,385,118 | 5.88 | 5.74 | 7 |
| 8 | Rajasthan | 56,473,122 | 5.50 | 5.20 | 9 |
| 9 | Karnataka | 52,733,958 | 5.14 | 5.31 | 8 |
| 10 | Gujarat ${ }^{1}$ | 50,596,992 | 4.93 | 4.88 | 10 |
| 11 | Orissa | 36,706,920 | 3.57 | 3.74 | 11 |
| 12 | Kerala | 31,838,619 | 3.10 | 3.44 | 12 |
| 13 | Jharkhand | 26,909,428 | 2.62 | 2.58 | 14 |
| 14 | Assam | 26,638,407 | 2.59 | 2.64 | 13 |
| 15 | Punjab | 24,289,296 | 2.37 | 2.40 | 15 |
| 16 | Haryana | 21,082,989 | 2.05 | 1.95 | 17 |
| 17 | Chhatisgarh | 20,795,956 | 2.03 | 2.08 | 16 |
| 18 | Delhi * | 13,782,976 | 1.34 | 1.11 | 18 |
| 19 | Jammu \& Kashmir ${ }^{2}$ | 10,069,917 | 0.98 | 0.92 | 19 |
| 20 | Uttaranchal | 8,479,562 | 0.83 | 0.84 | 20 |
| 21 | Himachal Pradesh ${ }^{3}$ | 6,077,248 | 0.59 | 0.61 | 21 |
| 22 | Tripura | 3,191,168 | 0.31 | 0.33 | 22 |
| 23 | Manipur | 2,388,634 | 0.23 | 0.22 | 23 |
| 24 | Meghalaya | 2,306,069 | 0.22 | 0.21 | 24 |
| 25 | Nagaland | 1,988,636 | 0.19 | 0.14 | 25 |
| 26 | Goa | 1,343,998 | 0.13 | 0.14 | 26 |
| 27 | Arunachal Pradesh | 1,091,117 | 0.11 | 0.10 | 27 |
| 28 | Pondicherry * | 973,829 | 0.09 | 0.10 | 28 |
| 29 | Chandigarh * | 900,914 | 0.09 | 0.08 | 30 |
| 30 | Mizoram | 891,058 | 0.09 | 0.08 | 29 |
| 31 | Sikkim | 540,493 | 0.05 | 0.05 | 31 |
| 32 | Andaman \& Nicobar Islands * | 356,265 | 0.03 | 0.03 | 32 |
| 33 | Dadra \& Nagar Haveli * | 220,451 | 0.02 | 0.02 | 33 |
| 34 | Daman \& Diu * | 158,059 | 0.02 | 0.01 | 34 |
| 35 | Lakshadweep * | 60,595 | 0.01 | 0.01 | 35 |

Note:

1. See note 3 below "Provisional Population Totals"
2. See note 4 below Statement 2
3. See note 2 below "Provisional Population Totals"

Table 3 gives the percentage decadal growth of each of the States and Union territories starting from 1901. Graphical representations of growth rates for some of the major States of the country are depicted in Figure 6. The analysis of growth rates of the States starting from the decade 19511961 tells the real story of population growth in India. It took four decades even for Kerala to
reach a decadal growth of less than ten percent from a high growth rate of 26.29 percent during 1961-71. Tamil Nadu also took forty years to reduce its growth from a high of 22.30 percent during 1961-1971 to 11.19 percent during 1991-2001. The growth rate in Bihar has shown an upward swing during 1991-2001 and the growth rates in Rajasthan, Uttar Pradesh, and Madhya Pradesh are now at a level where Kerala and Tamil Nadu were forty years ago. Even if it takes four decades for these four States to reach the present levels achieved by Kerala and Tamil Nadu, it seems it would be difficult for India to achieve a stable population by 2045. Therefore, it is imperative that some bold and path breaking initiatives are taken in reversing the trends of growth in these States, which at this stage do not show perceptible signs of abatement. Andhra Pradesh, however, has apparently shown an impressive fall in decadal growth rate by over ten percentage points within a short span of a decade and this success story does inspire confidence that it should be possible to cross all hurdles to achieve sharp declines in population growth.

Statement 4 gives the selected indicators of population growth in different States and Union territories of India. The percentage decadal growth of population in States and Union territories is depicted in Figure 7. The percentage decadal growth of population in the inter-censal period 19912001 varied from a low of 9.42 in Kerala to a very high 64.41 in Nagaland. Delhi with 46.31 percent, Chandigarh with 40.33 and Sikkim with 32.98 registered very high growth rates, while the small Union territories of Dadra and Nagar Haveli and Daman and Diu also registered very high growth rates. In addition to Kerala, two other major states in Southern India viz. Tamil Nadu and Andhra Pradesh registered low growth rates during 1991-2001.

The percentage decadal growth has declined during the census decade 1991-2001 as compared to the previous census decade in all the States/Union territories except Haryana, Uttar Pradesh, Bihar, Sikkim, Nagaland, Manipur, Gujarat, Daman and Diu and Dadra and Nagar Haveli. These States and Union territories that have shown increases in percent decadal growth together constitute about thirty two percent of India's population.

## Statement 4

Population, percentage decadal growth and average annual exponential growth rates 1981-91 and 1991-2001

| State/ UT | India/State/ Union territory * | Total population |  | Percentage decadal growth |  | Change in percenta ge decadal growth | Average annual exponential growth rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1991 | 2001 | $\begin{aligned} & 1981- \\ & 1991 \end{aligned}$ | $\begin{aligned} & 1991- \\ & 2001 \end{aligned}$ |  | $\begin{aligned} & \text { 1981- } \\ & 1991 \end{aligned}$ | $\begin{aligned} & 1991- \\ & 2001 \end{aligned}$ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |


| INDIA $^{1}$ | $\mathbf{8 4 6 , 3 8 7 , 8 8 8}$ | $\mathbf{1 , 0 2 7 , 0 1 5 , 2 4 7}$ | $\mathbf{2 3 . 8 6}$ | $\mathbf{2 1 . 3 4}$ | $\mathbf{- 2 . 5 2}$ | $\mathbf{2 . 1 4}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1.93 |  |  |  |  |  |  |
| 1 Jammu \& Kashmir |  |  |  |  |  |  |
| 2 | Himachal Pradesh |  |  |  |  |  |


| 10 Bihar | 64,530,554 | 82,878,796 | 23.38 | 28.43 | 5.05 | 2.10 | 2.50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 Sikkim | 406,457 | 540,493 | 28.47 | 32.98 | 4.51 | 2.51 | 2.85 |
| 12 Arunachal Pradesh | 864,558 | 1,091,117 | 36.83 | 26.21 | -10.63 | 3.14 | 2.33 |
| 13 Nagaland | 1,209,546 | 1,988,636 | 56.08 | 64.41 | 8.33 | 4.45 | 4.97 |
| 14 Manipur | 1,837,149 | 2,388,634 | 29.29 | 30.02 | 0.73 | 2.57 | 2.63 |
| 15 Mizoram | 689,756 | 891,058 | 39.70 | 29.18 | -10.51 | 3.34 | 2.56 |
| 16 Tripura | 2,757,205 | 3,191,168 | 34.30 | 15.74 | -18.56 | 2.95 | 1.46 |
| 17 Meghalaya | 1,774,778 | 2,306,069 | 32.86 | 29.94 | -2.93 | 2.84 | 2.62 |
| 18 Assam | 22,414,322 | 26,638,407 | 24.24 | 18.85 | -5.39 | 2.17 | 1.73 |
| 19 West Bengal | 68,077,965 | 80,221,171 | 24.73 | 17.84 | -6.89 | 2.21 | 1.64 |
| 20 Jharkhand | 21,843,911 | 26,909,428 | 24.03 | 23.19 | -0.84 | 2.15 | 2.09 |
| 21 Orissa | 31,659,736 | 36,706,920 | 20.06 | 15.94 | -4.12 | 1.83 | 1.48 |
| 22 Chhatisgarh | 17,614,928 | 20,795,956 | 25.73 | 18.06 | -7.67 | 2.29 | 1.66 |
| 23 Madhya Pradesh | 48,566,242 | 60,385,118 | 27.24 | 24.34 | -2.91 | 2.41 | 2.18 |
| 24 Gujarat ${ }^{4}$ | 41,309,582 | 50,596,992 | 21.19 | 22.48 | 1.29 | 1.92 | 2.03 |
| 25 Daman \& Diu * | 101,586 | 158,059 | 28.62 | 55.59 | 26.97 | 2.52 | 4.42 |
| 26 Dadra \& Nagar Haveli * | 138,477 | 220,451 | 33.57 | 59.20 | 25.63 | 2.89 | 4.65 |
| 27 Maharashtra | 78,937,187 | 96,752,247 | 25.73 | 22.57 | -3.16 | 2.29 | 2.04 |
| 28 Andhra Pradesh | 66,508,008 | 75,727,541 | 24.20 | 13.86 | -10.33 | 2.17 | 1.30 |
| 29 Karnataka | 44,977,201 | 52,733,958 | 21.12 | 17.25 | -3.87 | 1.92 | 1.59 |
| 30 Goa | 1,169,793 | 1,343,998 | 16.08 | 14.89 | -1.19 | 1.49 | 1.39 |
| 31 Lakshadweep * | 51,707 | 60,595 | 28.47 | 17.19 | -11.28 | 2.51 | 1.59 |
| 32 Kerala | 29,098,518 | 31,838,619 | 14.32 | 9.42 | -4.90 | 1.34 | 0.90 |
| 33 Tamil Nadu | 55,858,946 | 62,110,839 | 15.39 | 11.19 | -4.20 | 1.43 | 1.06 |
| 34 Pondicherry* | 807,785 | 973,829 | 33.64 | 20.56 | -13.08 | 2.90 | 1.87 |
| 35 Andaman \& Nicobar Is. * | 280,661 | 356,265 | 48.70 | 26.94 | -21.76 | 3.97 | 2.39 |

Notes:

1. See note 1 below "Figures At A Glance"
2. See note 4 below Statement 2
3. See note 2 below Provisional Population Totals
4. See note 3 below Provisional Population Totals

During the inter-censal period 1991-2001, a decline of more than five percentage points in decadal growth rate from the previous census decade was recorded for the States of Andhra Pradesh, West Bengal, Arunachal Pradesh, Delhi, Mizoram, Tripura, Assam, Uttaranchal and Chhatisgarh, and also for the Union territories of Lakshadweep, Pondicherry and Andaman and Nicobar Islands. These twelve States and Union territories together account for 22.61 per cent of the country's population. In fact, among the major States, Andhra Pradesh has registered the sharpest drop of 10.33 percentage points during the said period followed by Chhatisgarh (7.67) and West Bengal (6.89).
Jammu and Kashmir, Himachal Pradesh, Punjab, Meghalaya, Orissa, Madhya Pradesh, Maharashtra, Karnataka, Goa, Kerala and Tamil Nadu and the Union territory of Chandigarh have shown a decline of one to five percentage points in their growth rates during 1991-2001 as compared to 1981-1991. These twelve States and Union territories together account for 37.54 per cent of total population. In Rajasthan and Jharkhand, the decline in percentage decadal growth is less than one percentage point. These two states account for 8.12 percent of India's population.

Thus almost two third of the Indian population lives in States and Union territories which show a declining trend in population growth.

## Statement 5

## Distribution of States/ Union territories by range of percentage decadal growth :1981-1991 and 1991-2001

| Percentage decadal growth | Number of States/Union territories 1981-1991 | Percentage of population to total population 1991 | Number of States/Union territories 19912001 | Percentage of population to total population 2001 |
| :---: | :---: | :---: | :---: | :---: |
| <18 | 3 | 10.17 | 10 | 34.08 |
| 18-21 | 3 | 6.75 | 5 | 7.91 |
| 21-24 | 3 | 17.81 | 3 | 16.97 |
| 24-27 | 8 | 48.97 | 4 | 22.19 |
| 27-30 | 7 | 13.18 | 6 | 16.91 |
| $30+$ | 11 | 3.12 | 7 | 1.94 |

Note :
Based on interpolated population of Jammu and Kashmir in 1991 and by including the estimated population of affected areas of Himachal Pradesh and Gujarat in 2001

Statement 5 gives the distribution of States and Union territories by ranges of percentage decadal growth and the percentage of population of these States/Union territories. It clearly brings out the major shift in distribution of States and Union territories by the ranges of growth rates between 1981-1991 and 1991-2001. The number of States and Union territories with percentage decadal growth below twenty one percent, the current national average, has increased substantially from six in 1981-1991 to fifteen in the decade 1991-2001, whereas the number of States/Union territories with percentage decadal growth more than twenty one percent has reduced significantly from twenty nine to twenty. More significantly, the sum total of the population of the States and Union territories that registered less than the national growth rate has shown an impressive increase from about seventeen percent in 1991 to forty two percent in 2001.

## Statement 6

Distribution of States/ Union territories by range of average annual exponential growth : 1981-1991 and 1991-2001

| Average annual <br> exponential <br> growth rate | Number of <br> States/Union <br> territories <br> $1981-1991$ | Percentage of <br> population to <br> total population | Number of <br> States/Union <br> territories <br> $1991-2001$ | Percentage of <br> population to total <br> population |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
| $<1.0$ | 0 | 0.00 | 1 | 3.10 |
| $1.0-1.4$ | 3 | 10.17 | 5 | 17.43 |


| $1.5-1.9$ | 5 | 16.94 | 9 | 21.46 |
| :---: | :---: | :---: | :---: | :---: |
| $2.0-2.4$ | 11 | 64.28 | 8 | 46.71 |
| $2.5-2.9$ | 10 | 7.07 | 6 | 9.64 |
| $3.0+$ | 6 | 1.54 | 5 | 1.66 |

Note :
Based on interpolated population of Jammu and Kashmir in 1991 and by including the estimated population of affected areas of Himachal Pradesh and Gujarat in 2001

A similar inference could be drawn from Statement 6 in which the States and Union territories have been classified by ranges of the average annual exponential growth rates for these decades. The proportion of population of the States and Union territories in each of these categories to the total population have also been shown. During the period between 1981-1991, eight States and Union territories, with a share of about twenty seven percent of India's population, registered a growth rate of less than two percent. During 1991-2001, as many as fifteen States and Union territories with a share of about forty two percent fall in this category.

## Statement 7

## Decadal growth of population and percent contribution to total growth of India : 1981-91 and 1991-2001

| State/ <br> UT Code | India/States/ <br> Union territories * | Decadal growth of population <br> (Absolute) |  | Percentage contribution to <br> total growth of India |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1981-91$ | $1991-2001$ | $1981-91$ | $1991-2001$ |
| 1 | 2 | 3 | 4 | 5 | 6 |



| 17 | Meghalaya | 438,959 | 531,291 | 0.27 | 0.29 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | Assam | 4,373,074 | 4,224,085 | 2.68 | 2.34 |
| 19 | West Bengal | 13,497,318 | 12,143,206 | 8.28 | 6.72 |
| 20 | Jharkhand | 4,231,842 | 5,065,517 | 2.60 | 2.80 |
| 21 | Orissa | 5,289,465 | 5,047,184 | 3.24 | 2.79 |
| 22 | Chhatisgarh | 3,604,591 | 3,181,028 | 2.21 | 1.76 |
| 23 | Madhya Pradesh | 10,397,735 | 11,818,876 | 6.38 | 6.54 |
| 24 | Gujarat ${ }^{4}$ | 7,223,783 | 9,287,410 | 4.43 | 5.14 |
| 25 | Daman \& Diu * | 22,605 | 56,473 | 0.01 | 0.03 |
| 26 | Dadra \& Nagar Haveli * | 34,801 | 81,974 | 0.02 | 0.05 |
| 27 | Maharashtra | 16,154,369 | 17,815,060 | 9.91 | 9.86 |
| 28 | Andhra Pradesh | 12,956,982 | 9,219,533 | 7.95 | 5.10 |
| 29 | Karnataka | 7,841,487 | 7,756,757 | 4.81 | 4.29 |
| 30 | Goa | 162,044 | 174,205 | 0.10 | 0.10 |
| 31 | Lakshadweep * | 11,458 | 8,888 | 0.01 | 0.00 |
| 32 | Kerala | 3,644,838 | 2,740,101 | 2.24 | 1.52 |
| 33 | Tamil Nadu | 7,450,869 | 6,251,893 | 4.57 | 3.46 |
| 34 | Pondicherry* | 203,314 | 166,044 | 0.12 | 0.09 |
| 35 | Andaman \& Nicobar Islands * | 91,920 | 75,604 | 0.06 | 0.04 |

Note:

1. For working out the decadal growth of population for India, the population figures for 1991 Census for Jammu and Kashmir have been worked out by interpolation. Similarly, the population for India for 2001 Census has been arrived by including the estimated population of entire Kachchh district, Morvi, MaliyaMiyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State and entire Kinnaur district of Himachal Pradesh where population enumeration of Census of India, 2001, coulc not be conducted due to natural calamities.
2. While working out the decadal growth of population of Jammu and Kashmir the population figures for 1991 have been worked out by interpolation as 1991 Census could not be held in this State owing to disturbed conditions.
3. While working out the growth rate for the decade 1991-2001 for Himachal Pradesh the estimated population of Kinnaur district has been added to the total population for the Himachal Pradesh for 2001 Census as the actual population of Kinnaur district is not available because the population enumeration of Census of India 2001 could not be conducted in this district due to natural calamity.
4. While working out the growth rate for the decade 1991-2001 for Gujarat the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of J amnagar district has been added to the total population for the Gujarat for the year 2001 as the actual population of these districts for Census of India is not available because the population enumeration of Census of India, 2001, could not be conducted in these districts due to natural calamity.

Statement 7 presents the absolute increase in population of the States/Union territories of India during the census decades 1981-1991 and 1991-2001. The percentage contributions of each of the States and Union territories to the total growth of India for the decades 1981-1991 and 1991-2001 have also been shown in Statement 7.

Although, in the country as a whole there has been an increase in net accretion in the population during 1991-2001 as compared to 1981-1991, a few States and Union territories have shown a
reverse trend in this respect. The most significant drops in the net addition are seen in Andhra Pradesh, West Bengal, Kerala and Tamil Nadu. It can be estimated that if these four States had added the same number of persons during 1991-2001 as they did in the previous decade, everything remaining the same, India would have added another 7.2 million more persons during this decade. This would have resulted in an increase decadal growth of India by almost one percentage point. Other things being equal it appears that these four States together have been partly responsible for arresting the rate of growth of population of the country. On the other hand Uttar Pradesh, Bihar and Rajasthan have together added about sixteen million more persons during 1991-2001 than the number they added in the previous decade. These three States along with Madhya Pradesh account for about forty two percent of the growth of the country during 19912001, while during 1981-1991 their contribution in the growth was about thirty six percent. On the other extreme, there are sixteen States and Union territories, which individually have not contributed even one percent to the growth of India's population during 1991-2001. As many as fourteen States and Union territories have shown a decline in absolute growth in this decade as compared to the previous decade. These States and Union territories together account for 39.02 percent of India's population.

## Statement 8

## Population and proportion of child population in the age group 0-6 by sex : 1991 and 2001

|  | India/States/ Union territories * | Child population in the age group 0-6 |  |  | Proportion of child population in the age group 0-6 to total population |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code |  | 2001 |  |  | 1991 |  |  | 2001 |  |  |
|  |  | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |


| INDIA ${ }^{\prime}$ | 157,863,145 | 81,911,041 | 75,952,104 | 17.94 | 17.77 | 18.12 | 15.42 | 15.47 | 15.36 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Jammu \& Kashmir | 1,431,182 | 738,839 | 692,343 | N.A. | N.A. | N.A. | 14.21 | 13.94 | 14.52 |
| 2 Himachal Pradesh ${ }^{\text {< }}$ | 769,424 | 405,618 | 363,806 | 16.26 | 16.47 | 16.03 | 12.84 | 13.34 | 12.32 |
| 3 Punjab | 3,055,492 | 1,704,142 | 1,351,350 | 16.30 | 16.36 | 16.23 | 12.58 | 13.15 | 11.93 |
| 4Chandigarh * | 109,293 | 59,238 | 50,055 | 14.92 | 14.06 | 16.00 | 12.13 | 11.66 | 12.75 |
| 5 Uttaranchal | 1,319,393 | 692,272 | 627,121 | 18.33 | 18.22 | 18.46 | 15.56 | 16.04 | 15.06 |
| 6 Haryana | 3,259,080 | 1,790,758 | 1,468,322 | 18.98 | 18.84 | 19.14 | 15.46 | 15.81 | 15.05 |
| 7Delhi* | 1,923,995 | 1,031,584 | 892,411 | 17.06 | 16.28 | 18.01 | 13.96 | 13.63 | 14.37 |
| 8 Rajasthan | 10,451,103 | 5,474,965 | 4,976,138 | 20.13 | 20.06 | 20.21 | 18.51 | 18.63 | 18.37 |
| 9 Uttar Pradesh | 30,472,042 | 15,903,900 | 14,568,142 | 20.38 | 19.84 | 20.99 | 18.35 | 18.18 | 18.54 |
| 10Bihar | 16,234,539 | 8,375,532 | 7,859,007 | 20.70 | 20.21 | 21.24 | 19.59 | 19.41 | 19.78 |
| 11 Sikkim | 77,170 | 38,856 | 38,314 | 18.37 | 17.56 | 19.29 | 14.28 | 13.48 | 15.19 |


| 12Arunachal Pradesh | 200,055 | 102,010 | 98,045 | 21.12 | 19.82 | 22.64 | 18.33 | 17.77 | 18.96 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13Nagaland | 280,172 | 141,852 | 138,320 | 17.15 | 16.23 | 18.19 | 14.09 | 13.62 | 14.61 |
| 14Manipur | 312,691 | 159,448 | 153,243 | 16.69 | 16.55 | 16.83 | 13.09 | 13.21 | 12.97 |
| 15Mizoram | 141,537 | 71,817 | 69,720 | 18.60 | 18.15 | 19.09 | 15.88 | 15.62 | 16.17 |
| 16 Tripura | 427,012 | 216,244 | 210,768 | 18.03 | 17.82 | 18.25 | 13.38 | 13.22 | 13.55 |
| 17Meghalaya | 457,442 | 231,571 | 225,871 | 22.18 | 21.84 | 22.54 | 19.84 | 19.83 | 19.84 |
| 18Assam | 4,350,248 | 2,215,104 | 2,135,144 | 19.73 | 19.20 | 20.29 | 16.33 | 16.07 | 16.62 |
| 19West Bengal | 11,132,824 | 5,671,152 | 5,461,672 | 16.98 | 16.56 | 17.45 | 13.88 | 13.67 | 14.10 |
| 20Jharkhand | 4,796,188 | 2,440,025 | 2,356,163 | 20.17 | 19.59 | 20.80 | 17.82 | 17.60 | 18.06 |
| 21 Orissa | 5,180,551 | 2,656,046 | 2,524,505 | 16.89 | 16.93 | 16.85 | 14.11 | 14.27 | 13.95 |
| 22Chhatisgarh | 3,469,774 | 1,756,441 | 1,713,333 | 19.34 | 19.36 | 19.33 | 16.68 | 16.80 | 16.56 |
| 23Madhya Pradesh | 10,618,323 | 5,504,422 | 5,113,901 | 19.94 | 19.64 | 20.27 | 17.58 | 17.50 | 17.68 |
| 24Gujarat ${ }^{\text {s }}$ | 6,867,958 | 3,656,956 | 3,211,002 | 16.48 | 16.53 | 16.43 | 14.19 | 14.51 | 13.85 |
| 25Daman \& Diu * | 20,012 | 10,394 | 9,618 | 15.53 | 15.62 | 15.44 | 12.66 | 11.24 | 14.67 |
| 26 Dadra \& Nagar Haveli * | 39,173 | 19,856 | 19,317 | 20.46 | 19.84 | 21.12 | 17.77 | 16.31 | 19.57 |
| 27Maharashtra | 13,187,087 | 6,878,579 | 6,308,508 | 17.11 | 17.00 | 17.23 | 13.63 | 13.67 | 13.59 |
| 28 Andhra Pradesh | 9,673,274 | 4,926,200 | 4,747,074 | 16.49 | 16.46 | 16.51 | 12.77 | 12.87 | 12.68 |
| 29Karnataka | 6,826,168 | 3,501,499 | 3,324,669 | 16.63 | 16.63 | 16.63 | 12.94 | 13.04 | 12.85 |
| 30 Goa | 142,152 | 73,547 | 68,605 | 11.74 | 11.75 | 11.72 | 10.58 | 10.73 | 10.42 |
| 31Lakshadweep * | 8,860 | 4,488 | 4,372 | 18.30 | 18.32 | 18.28 | 14.62 | 14.42 | 14.83 |
| 32 Kerala | 3,653,578 | 1,861,669 | 1,791,909 | 13.19 | 13.71 | 12.68 | 11.48 | 12.04 | 10.95 |
| 33 Tamil Nadu | 6,817,669 | 3,515,562 | 3,302,107 | 13.33 | 13.51 | 13.15 | 10.98 | 11.24 | 10.71 |
| 34Pondicherry * | 113,010 | 57,722 | 55,288 | 13.67 | 13.78 | 13.55 | 11.60 | 11.86 | 11.35 |
| 35 Andaman \& Nicobar Islands * | 44,674 | 22,733 | 21,941 | 16.51 | 15.22 | 18.09 | 12.54 | 11.78 | 13.44 |

Note:

1. While working out the proportion of child population for 1991 Census in the age group 0-6 for India, the population in the age group 0-6 of areas Himachal Pradesh and Gujarat affected by natural calamities have been excluded. The details of affected areas are given in Notes 2 and 3 below.
2. The proportion of child population for 1991 Census in the age group 0-6 shown against Himachal Pradesh for 1991 excludes population in the age group 0-6 of Kinnaur district to make the data comparable with 2001 Census.
3. The proportion of child population for 1991 Census in the age group $0-6$ shown against Gujarat excludes the population data of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State to make the data comparable with 2001 Census

The quick collection and compilation of data on child population in the age group 0-6 although primarily intended for calculating the literacy rates, allows us to broadly analyse its possible linkages with growth of population. Statement 8 gives the child population for 2001 and also its proportion to the total population for 1991 and 2001 by sex. Simple correlation co-efficient between growth rate and proportion of child population in the age group 0-6 in case of major States (with population of more than thirty million) for 1991 and 2001 works out to be +0.78 and +0.92 respectively. There is a strong positive relationship between the growth rate and the child population in the age group 0-6.
It can also be assumed with a fair amount of confidence that the child population in this age group is least likely to be affected by inter-state migrations. In a population that is not greatly affected by huge changes in age structure, adult migration or child mortality between two points of time, a significant fall in proportion of children in the age-group $0-6$ is broadly indicative of fall in fertility during the period. In India, the proportion of children in the age group 0.6 decreased from 17.94 percent in 1991 to 15.42 percent in 2001. In case of males, the percentage dropped by 2.30 points and for the females by 2.76 points. The distribution of States and Union territories by their ranges of the proportion of child population in the age group $0-6$ for the censuses of 1991 and 2001 is given in Statement 9.

## Statement 9

Distribution of States and Union territories by their ranges of the proportion of child population in the age group 0-6 for the years 1991 and 2001 Census

| Range of proportion of <br> child population in the <br> age group 0-6 | Number of <br> States/Union <br> territories 1991 | Percentage of <br> population to <br> total <br> population <br> 1991 | Number of <br> States/Union <br> territories 2001 | Percentage of <br> population to total <br> population <br> 2001 |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |


| Less than 12.00 | 1 | 0.14 | 4 | 9.37 |
| :--- | :---: | ---: | :---: | :---: |
| $12.00-13.99$ | 3 | 10.13 | 12 | 34.72 |
| $14.00-15.99$ | 2 | 0.09 | 8 | 11.72 |
| $16.00-17.99$ | 12 | 43.68 | 5 | 13.14 |
| 18.00 and above | 16 | 45.05 | 5 | 30.07 |

Note: Jammu and Kashmir is excluded from 1991 and 2001 for the sake of comparability.
It would be of interest to note that in 1991 only four States/Union territories had the percentage of child population in age group 0-6 less than fourteen with a share of about ten percent of India's population. This number of States/Union territories has swelled to sixteen in 2001 and now has a share of forty four percent. The number of States and Union territories having child population less
than sixteen percent has increased from six with a share of about ten percent of India's population in 1991 to twenty four with a share of fifty six percent in 2001 . These results perhaps broadly indicate a drop in fertility across the country.
It will be of some tropical interest to know about the changing patterns in the absolute number of children in the age group $0-6$. For the country as a whole (excluding Jammu and Kashmir), there has been an increase by about 6.4 million children during the decade 1991-2001. However, in as many as thirteen States/Union territories a decline in the absolute number of children during this period has been observed. These are, Himachal Pradesh $(59,521)$ and Punjab $(250,753)$ in the north; Tripura $(70,110)$, Assam $(71,263)$, West Bengal $(429,473)$ and Orissa $(166,950)$ in the north-east and east; Maharashtra $(317,449)$ in the west and Andhra Pradesh $(1,291,114)$, Karnataka (651,443), Lakshadweep (604), Kerala (183,322), Tamil Nadu $(630,390)$ and Andaman and Nicobar Islands $(1,675)$ in the south. The most impressive decline of about 1.3 million children is observed for Andhra Pradesh. It is also obvious that in the contiguous four major South Indian States fertility decline appears to have well established, stretching to neighbouring Maharashtra on the west and Orissa and West Bengal in the east, whereas in other regions it is rather scattered.

It would be interesting to study the difference in the child population in the age group 06 as obtained from the Census of India, 2001, with that estimated by the Population projections (1996) for major States. Statement 10 gives the difference in population in the age group 06 from the above two mentioned sources for some major States, and India.

## Statement 10

Difference in population and child population in the age group 0-6 between projected and census in selected major States: 2001

| State | Child Population in the <br> age group 0-6 | Difference <br> (col. 3- <br> col.2) | Population | (in thousands) | Difference <br> (col.6-col5) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Projected | Census |  | Projected | Census |  |
|  | 2 | 3 | 4 | 5 | 6 | 7 |


| Andhra Pradesh | 9397 | 9673 | 276 | 76392 | 75728 | -664 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Assam | 3919 | 4350 | 431 | 26492 | 26638 | 146 |
| Bihar \& J harkhand | 17585 | 21031 | 3446 | 101819 | 109788 | 7969 |
| Haryana | 3143 | 3259 | 116 | 20120 | 21083 | 963 |
| Karnataka | 7121 | 6826 | -295 | 52719 | 52734 | 15 |
| Kerala | 3452 | 3654 | 202 | 32530 | 31839 | -691 |
| Madhya Pradesh \& Chhatisqarh | 14106 | 14088 | -18 | 81189 | 81181 | -8 |
| Maharashtra | 12535 | 13187 | 652 | 92057 | 96752 | 4695 |
| Orissa | 4817 | 5181 | 364 | 36156 | 36707 | 551 |
| Puniab | 3368 | 3055 | -313 | 23794 | 24289 | 495 |
| Raiasthan | 9179 | 10451 | 1272 | 54509 | 56473 | 1964 |
| Tamil Nadu | 6728 | 6818 | 90 | 62252 | 62111 | -141 |
| Uttar Pradesh \& Uttaranchal | 32595 | 31791 | -804 | 174290 | 174531 | 241 |
| West Bengal | 10775 | 11133 | 358 | 79992 | 80221 | 229 |

```
India
```

| (including all States and <br> Union territories) | 153643 | $157863^{1}$ | 422010123861027015 | 14629 |
| :--- | :--- | :--- | :--- | :--- | :--- |

Note:
This does not include population of age 0-6 of the areas affected by natural calamities in Gujarat and Himachal Pradesh

It can be seen from the census results that Bihar and Jharkhand together have recorded 3.4 million more children in the age group 0.6 than projected for this age group. Rajasthan has counted 1.3 million more children in this age group. In Uttar Pradesh and Uttaranchal together, the number of children in the age group 0.6 recorded in the census is lower than the projections by 0.8 million. For the country as a whole the population of the children in the age group $0-6$ was projected to be 153.64 million while the number recorded in the census was 157.86 million. Therefore, the child population as obtained from census appears to have exceeded the estimated figure by about 4.22 million. The corresponding difference for the entire population is about 14.6 million.



[^0]:    ${ }^{1}$ Source : United Nations Population Division, World Population Prospects: The 1998 Revision.

