

Age Pyramids: Populations of different religious communities in India indeed look very different

In the previous post, we discussed the rapid and nearly complete Christianisation of the Scheduled Tribes of Arunachal Pradesh. We need to discuss several other issues concerning that State; but it is not possible to deal with the religious demography of Arunachal Pradesh and the other States of the northeast comprehensively without knowing the religious profile of the individual Scheduled Tribe populations there. As we repeatedly mention in our post on Arunachal Pradesh, this data for Census 2011 is not available yet. We hope that the relevant Table (ST-15) shall be soon released. We shall revert to the religious demography of Arunachal Pradesh and the other States of the northeast after that.

Meanwhile, the Census has released, for the first time, data on the age-distribution of different religious communities. Age distribution data tells much about the history and the future growth of a population. In this note, we give age pyramids of different religious communities for India and for some of the States. These figures graphically show the vast difference in the population dynamics of different religious communities.

Age Pyramids

An age pyramid is a graphic representation of the distribution of a population by age and gender. For this purpose, the population is typically divided into 5-year age groups (also called cohorts), beginning with the 0-4 years and going up to say 75-79 years and above. The pyramid comprises back-to-back graphs for males and females; by convention, the left graph depicts the age distribution of males and the right graph of the females.

To a trained demographer, and also to a lay educated person, an age pyramid conveys a great deal about the dynamics of the population it represents. In particular, it indicates the past trends and future possibilities of growth of the population; it also says something about the relative birth and death rates in the population; and, it graphically shows the gender ratio for different age groups.

Typically, the age pyramid of an expanding population is wide at the base and narrow at the top; the number of children in such a population is relatively higher, and only a few people live up to higher ages. As the population stabilises, the base begins to contract, and initially there is a bulge in the middle, indicating a larger number of youth in the population. This bulge in the middle is often referred to as the 'demographic dividend'. In a harmonious, functioning and well-organised society, the youth bulge can lead to higher economic activity and growth; in others, it can lead to much violence and tension. At some stage, the populations may begin to contract; age pyramids of such populations get reversed, these become wider at the top and narrower at the bottom.

As we see below, in India, the age pyramids of different religious communities differ considerably from each other. The pyramids for Muslims are considerably wider at the

base as compared to others and some communities, particularly the Jains, Sikhs and Buddhists, seem to be reaching demographic stability and even contraction. The age pyramids also differ widely from State to State.

Age pyramids of the all-India population of different communities

Hindus and Muslims

Below, on page 3, we give the age pyramids for Hindu and Muslim populations of India. Both pyramids show a distinct narrowing of the 0-4 year cohort and a distinct bulging at 5-19 years. But overall, the pyramid for Muslims is much wider at the base, and the bulge at 5-19 years is much more marked for them as compared to the Hindus.

The gender ratio of Muslims is distinctly better than the Hindus in the lower age groups; from age 40 onwards, the gender ratio of Hindus becomes better than the Muslims.

These differences in the age-structure of the populations of the two communities have important demographic and sociological consequences. One of the obvious consequences, of course, is the higher growth rate of Muslims which is likely to persist for several decades as their relatively larger cohorts in the lower age groups and the larger number of women in these cohorts grow up to child-bearing age. Differing age pyramids of the two communities indicate that much of the difference in their growth may be attributed to higher natural fertility of the Muslim population.

Incidentally, there is relatively larger number of women than men in the 55+ age groups for both Hindus and Muslims. This is a universal phenomenon; in most populations of the world, women who survive the childbearing phase, tend to live longer than men.

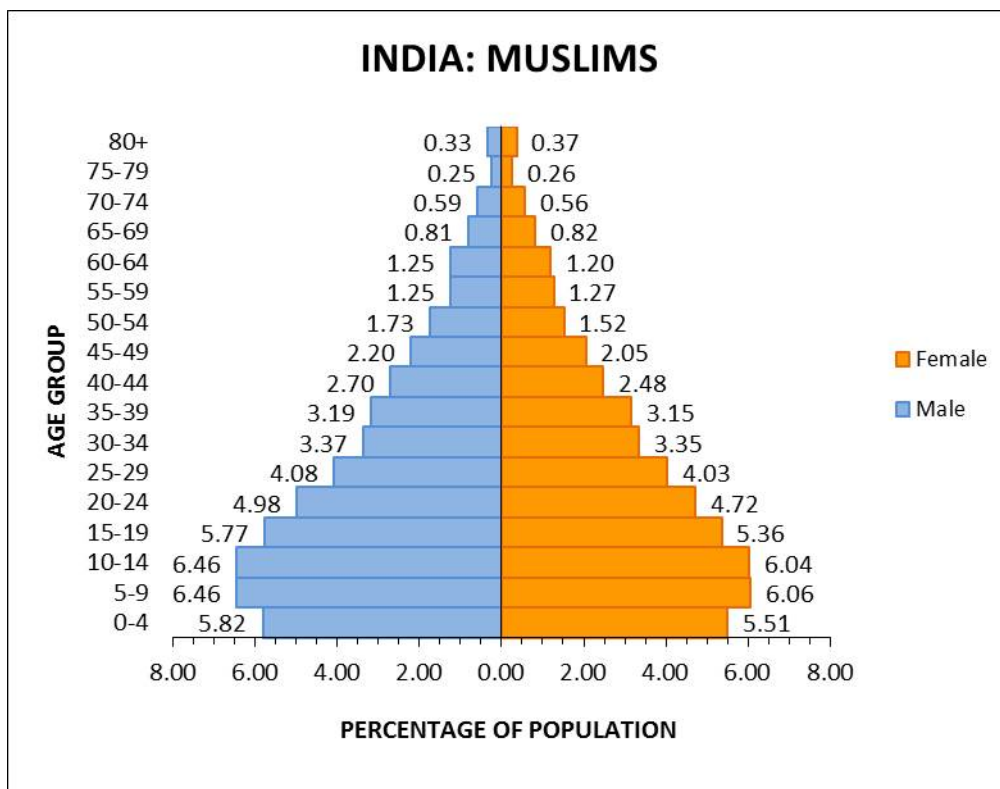
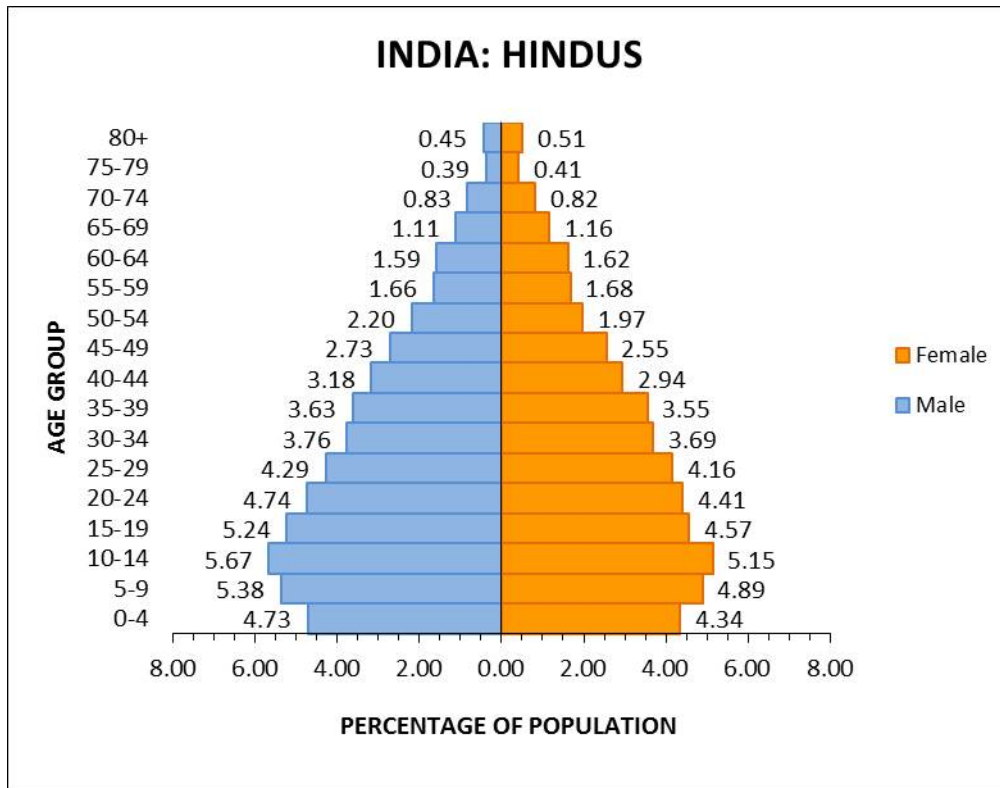
There are many other interesting facts that can be read from these age pyramids. But the core fact is that the age pyramids of the Hindu and Muslim populations of India look quite different from each other, and it seems unlikely that the two would become similar anytime in the immediate future. The differences in the age pyramids of the two communities are even starker in many of the major States.

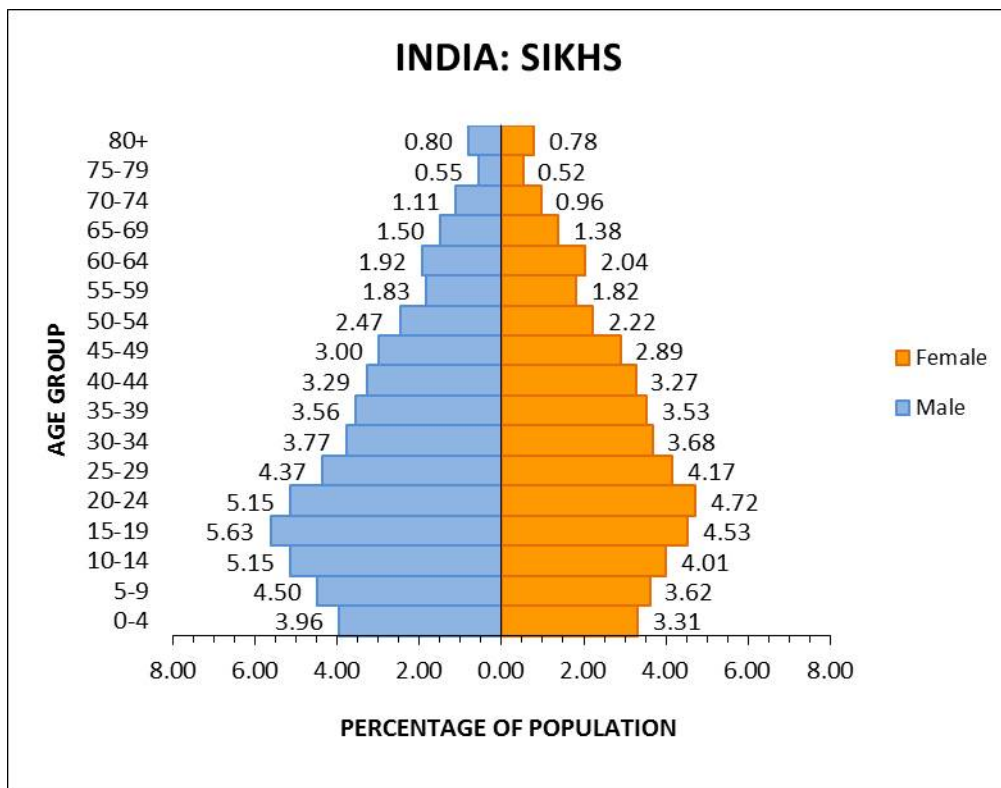
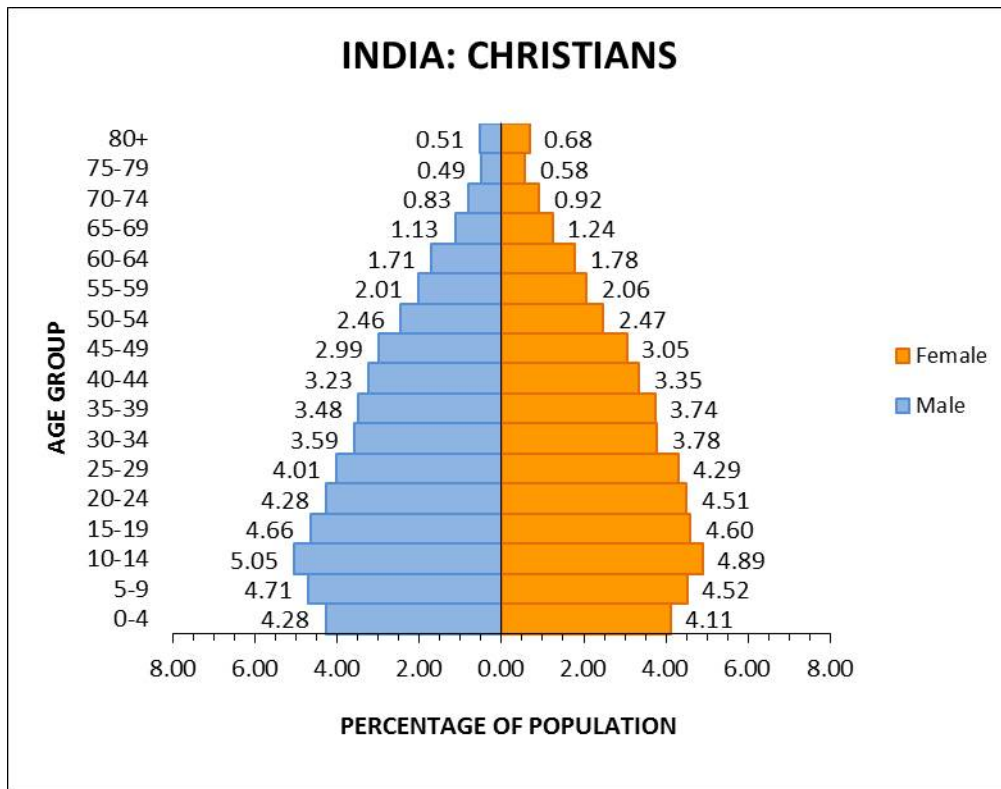
Christians

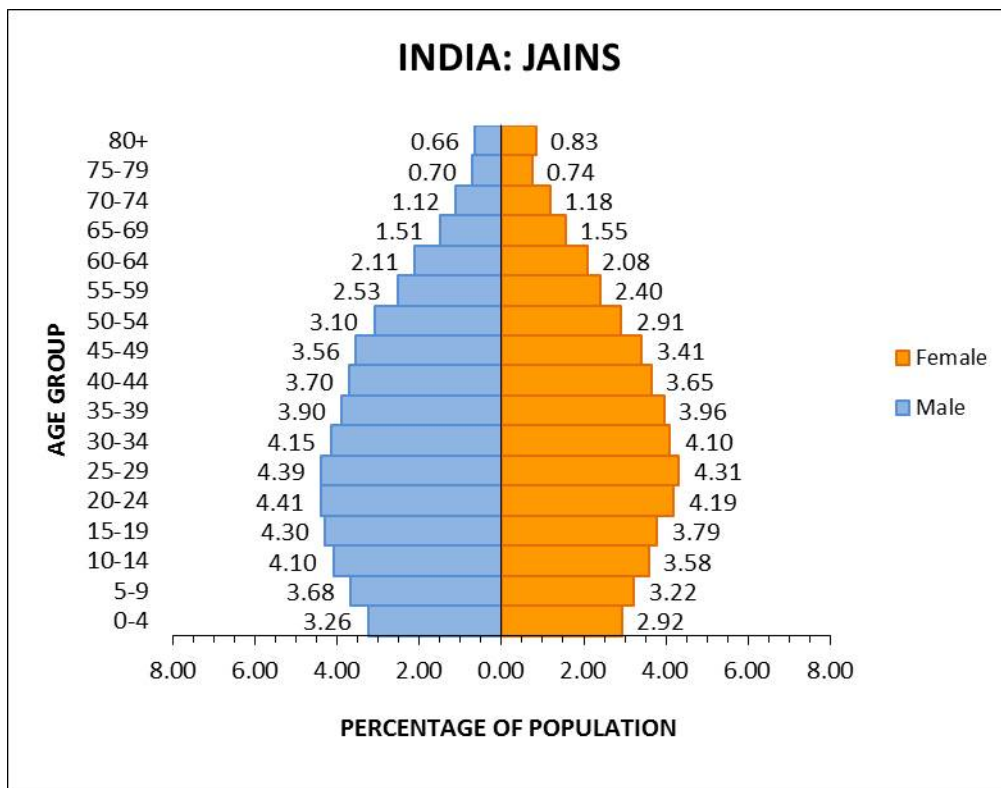
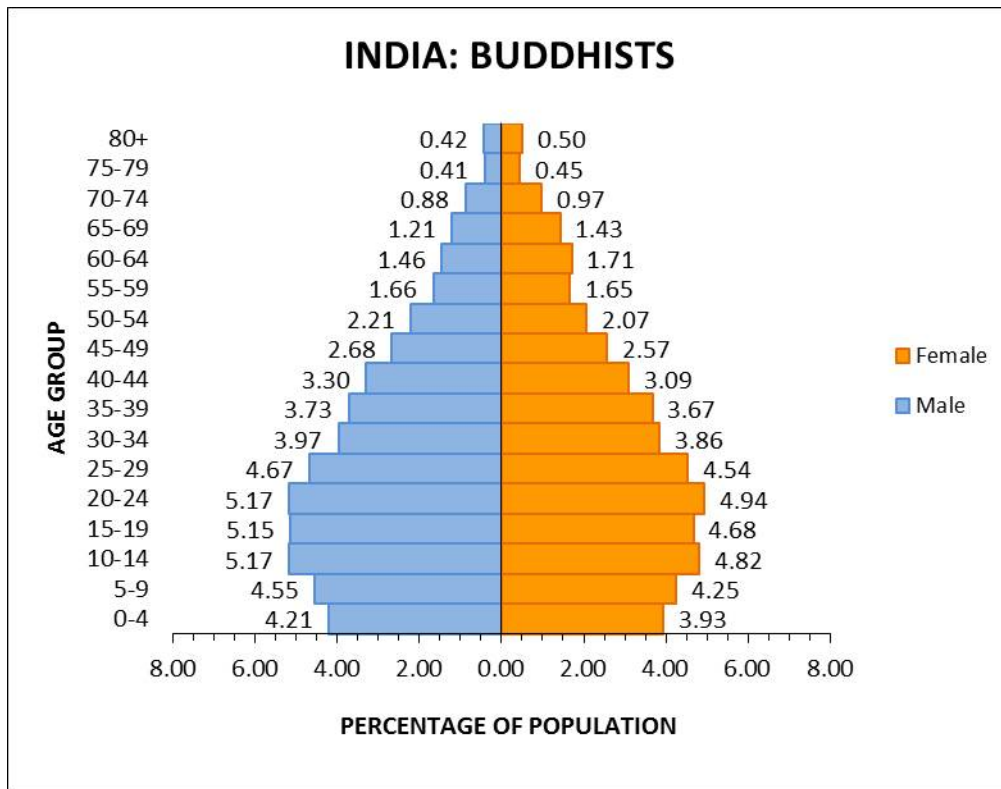
Age pyramid of the Christian population (p.4) is much narrower at the bottom than the Hindus, and the bulge at 5-19 years is less pronounced. In general, the pyramid indicates a stabilising population. Interesting, in this population, there are more women than men in all age groups of 20 years and above. These peculiarities are because a large majority of the Christians are in Kerala and the neighbouring southern States; these States, in general, have lower growth rates and better gender ratio than the average of India.

The lower fertility of Christians indicated in this pyramid also implies that further accretions to their population are occurring through conversion and not natural growth.

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Sikhs

The age pyramid for Sikhs is much narrower at the bottom than the Hindus; it is considerably narrower than even the Christians. It has a significant bulge at the 10-24 years age groups; and there is much larger proportion of the population in the higher age groups; the difference is especially large for 64+ populations. This indicates a stabilising and healthier population. But, the gender ratio among Sikhs is much worse than others in all age groups. The ratio is very low for the lower age groups; and, contrary to the normal pattern, there are more men than women among them, even at higher ages.

Buddhists

The age pyramid of Buddhists is somewhat similar to the Christians and shows the same peculiarities. Part of the reason is that a majority of the Buddhists are from Maharashtra, which shares the demographic attributes of much of south India.

Jains

The age pyramid of Jains looks distinctly different than others. It is narrow at the base, and the three cohorts in the 15-29 years age group are nearly equal in width. The pyramid indicates a probably constricting population. The gender ratio of Jains in the lower age groups is worse than the Hindus, but not as bad as that of Sikhs.

The age pyramids of the six major religious communities in the Indian population thus largely confirm what we have earlier seen from their growth rates. But, these pyramids add a great deal of detail to our understanding of these populations, and raise new questions that need further exploration.

Below, we look at the age pyramids of the significant religious communities in some of the more interesting States from the perspective of religious demography.

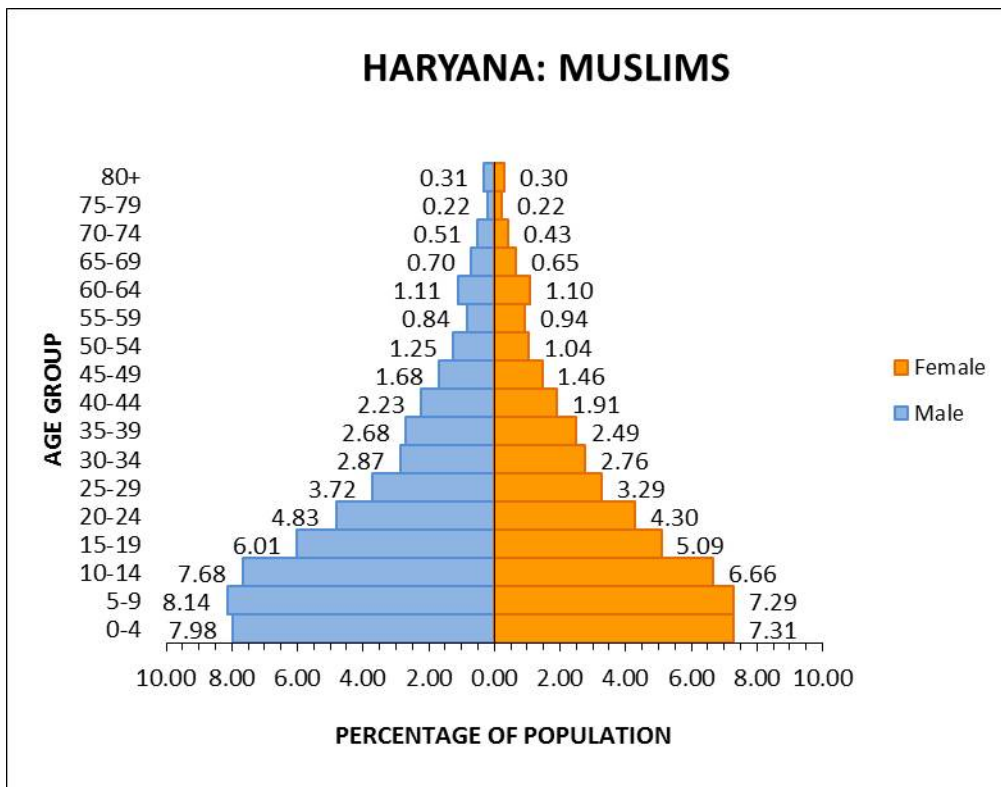
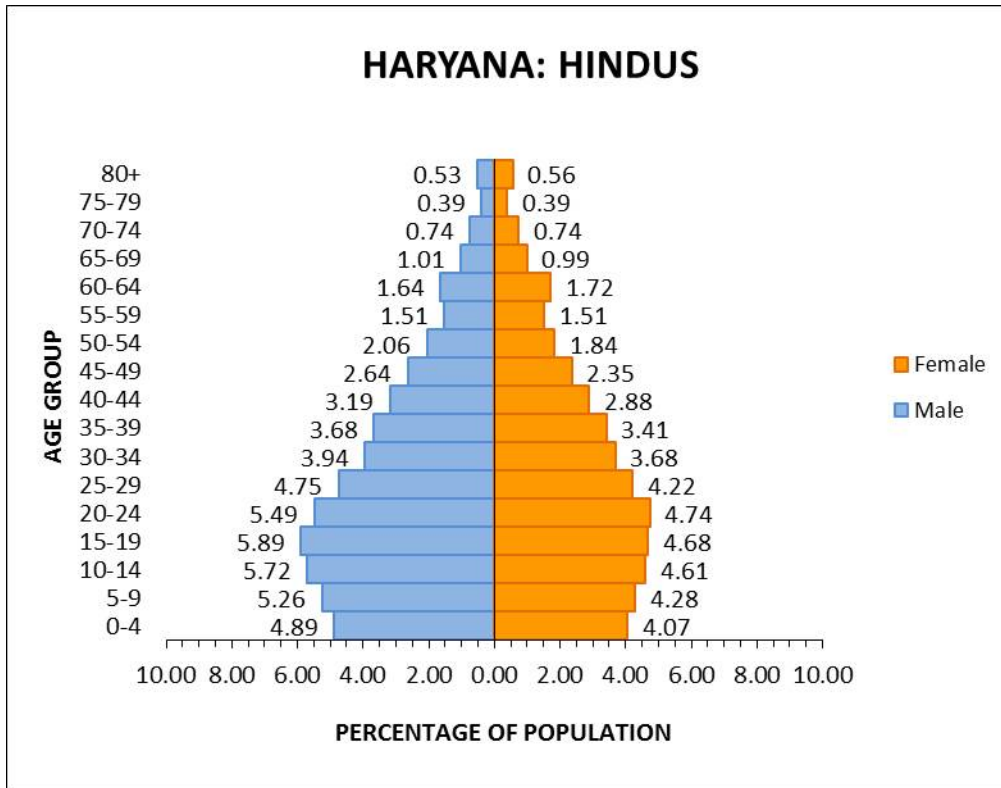
Haryana

In Haryana, the difference in the growth of Hindus and Muslims is very large. During 2001-11, Muslims have registered a growth of 39 percent compared to 16 percent for the Hindus; and Muslims have 21.8 children in the 0-6 age group per hundred of the population compared to 12.8 for the Hindus.

This large difference in the fertility and growth of the two populations is distinctly visible in the age pyramids of the two communities (p.7). The age pyramids for Hindus in Haryana is not very different from the all India population of Hindus. But, the pyramid for Muslims is nearly 70 percent wider at the base than that of the Hindus.

The gender ratio of Muslims in Haryana is better than that of Hindus in the lower age groups; but in the 60+ age groups the gender ratio of Hindus is distinctly higher.

The growth rate of Muslims during 2001-11 has been higher than that of Hindus in all major States, and in many States, the difference in the two rates is similar to that in Haryana. The age pyramids of Haryana are thus representative of many other States.



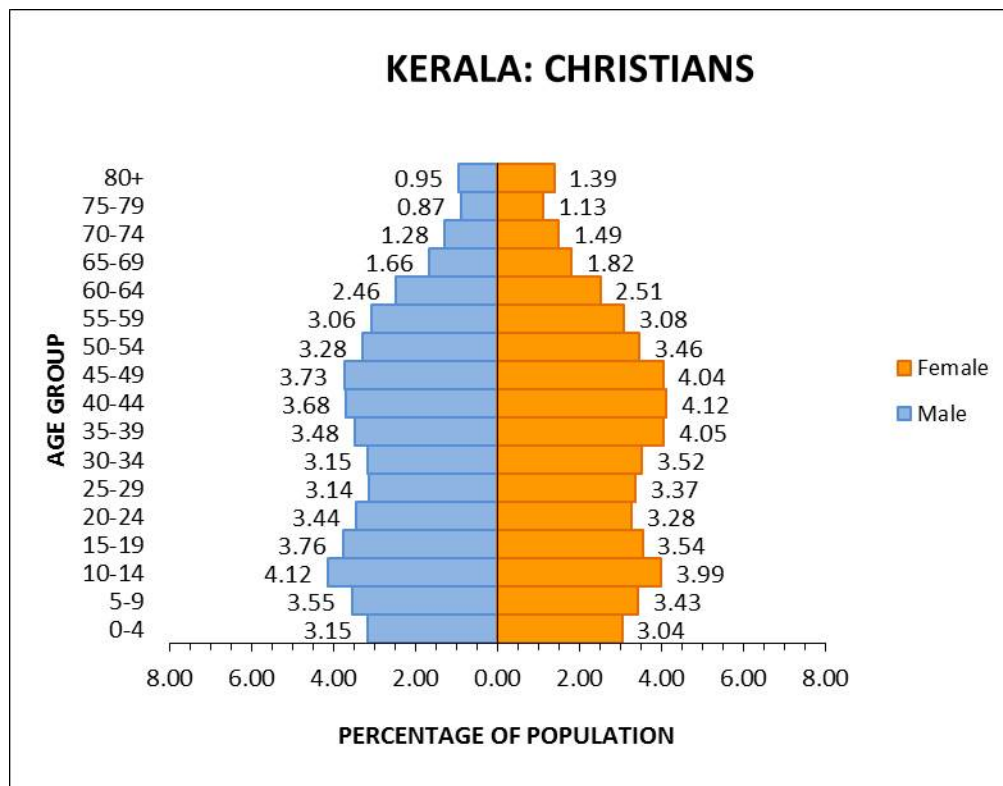
Kerala

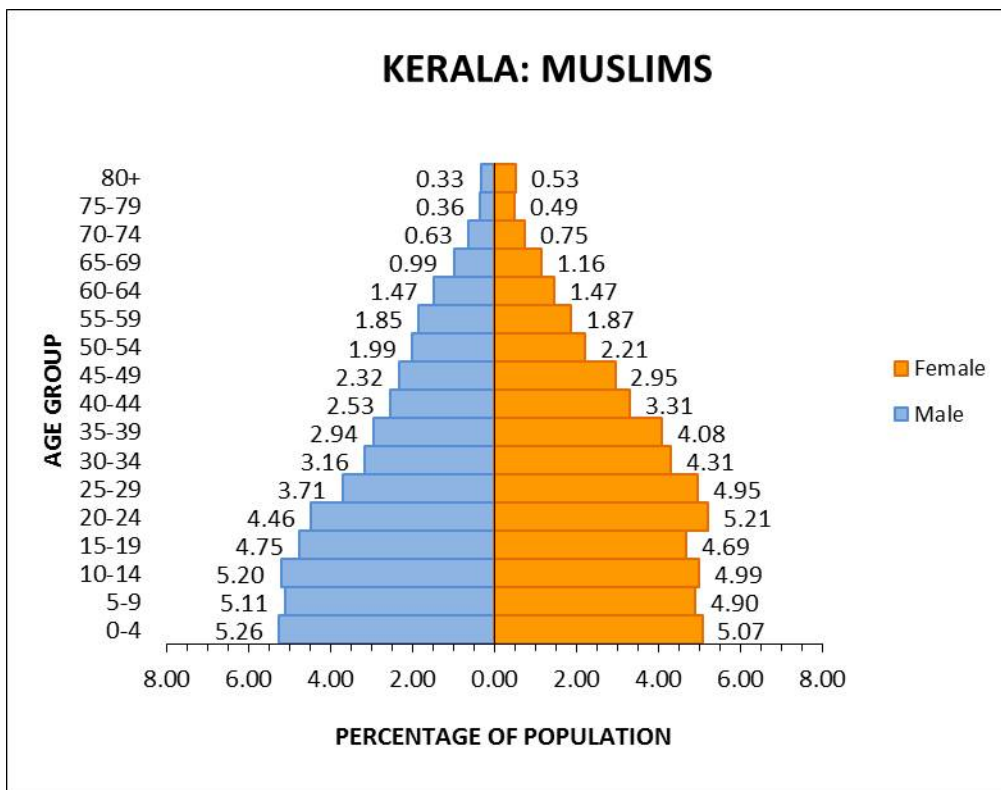
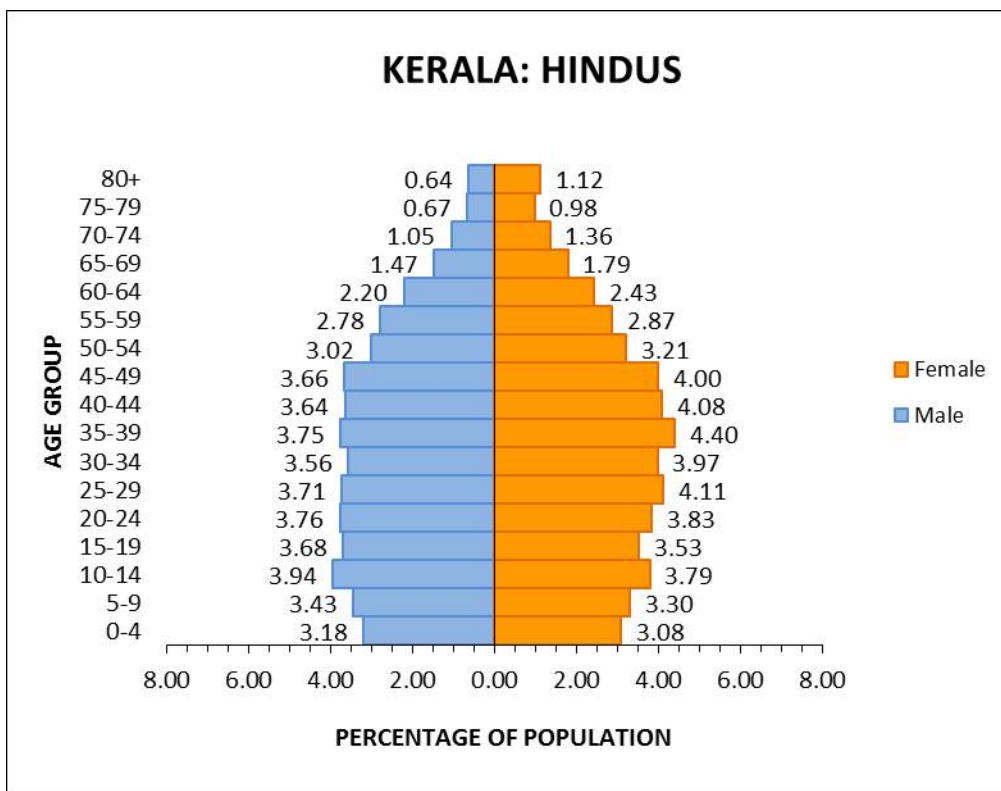
Kerala is said to be far ahead of India in social parameters; therefore, in terms of fertility and growth of population, Kerala is far behind the average of India. Population of the State has grown by less than 5 percent during 2001-11, and there are only 10.4 children in the 0-6 age group per hundred of the population compared to the Indian average of 13.6.

There is not much difference in the literacy rates of different communities; the total and female literacy rate in the State is above 90 percent for all. Yet the age pyramid of the Muslim population of Kerala is distinctly different than that of the other two major religious communities of the State, the Hindus and the Christians.

The pyramids for both Hindus and Christians have a narrow base and fairly wide cohorts running up to higher age groups. Both pyramids indicate populations whose growth has been slowing down for several years. The pyramid for Muslims is, however, nearly 70 percent wider at the base than that of Hindus and Christians; the gap is similar to that in Haryana. This gap reflects in the higher growth of Muslims; during 2001-11, Muslims in the State have grown by 12.84 percent, compared to the growth of 2.23 percent of Hindus and 1.38 percent of Christians.

Incidentally, gender ratio of Muslims in Kerala is somewhat better than the others; it is 1,125 for the Muslims compared to 1,077 for Hindus and 1,051 for the Christians. Notice that the ratio is above 1,000 for all communities; for Hindus and Muslims there are more women than men in all age groups above 20; for Christians, the number of women become higher than men from age 25 and above.





Assam

In Assam also, the age pyramids of Hindus and Muslims, shown at p.11 below, are considerably different. The age pyramid of Hindus indicates a population with sharply slowing growth, while the age pyramid of Muslims is distinctly wider at the base and distinctly more conical. This is reflected in the much higher growth of Muslims in Assam during 2001-11; Muslims have registered a growth of 21.8 percent compared to the Hindu growth of 10.8 percent. The number of children of age 0-6 years for Muslims is 19.42 per hundred of the population for Muslims compared to 12.32 for Hindus. This gap of 7 children per hundred is very wide indeed.

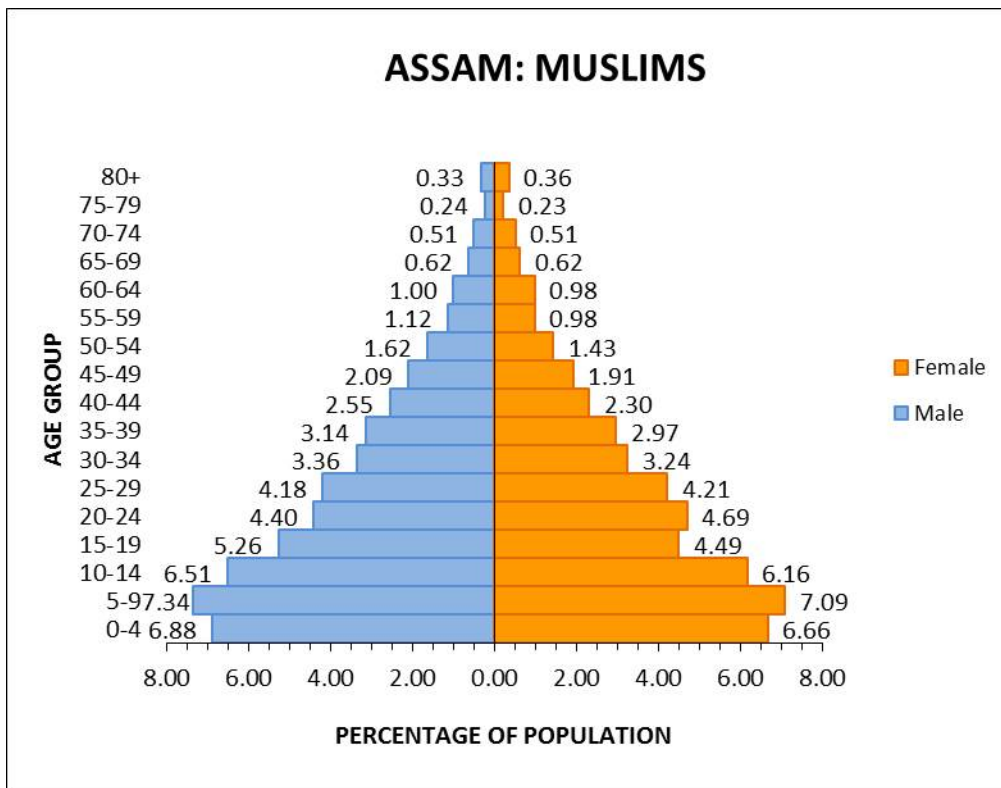
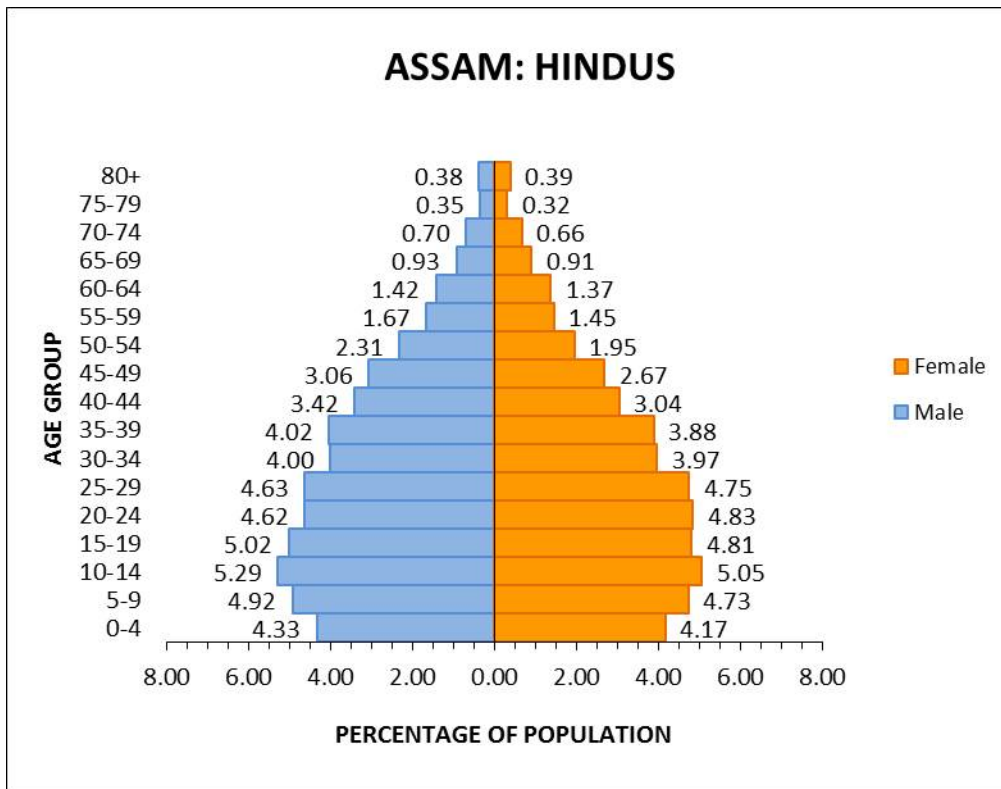
Uttar Pradesh

In Uttar Pradesh, which accommodates 3.85 crore of the total 17.22 crore Muslims in India, the age pyramid of Muslims is not as widely different from the Hindus (see p.12 below) as in several other States, including Haryana, Kerala and Assam that we have mentioned above. Unlike in these latter States, the Muslim age pyramid is only about 14 percent wider at the base compared the Hindu pyramid. And for both Hindus and Muslims, the 0-4 cohorts are distinctly smaller than 5-9 and 10-14 cohorts.

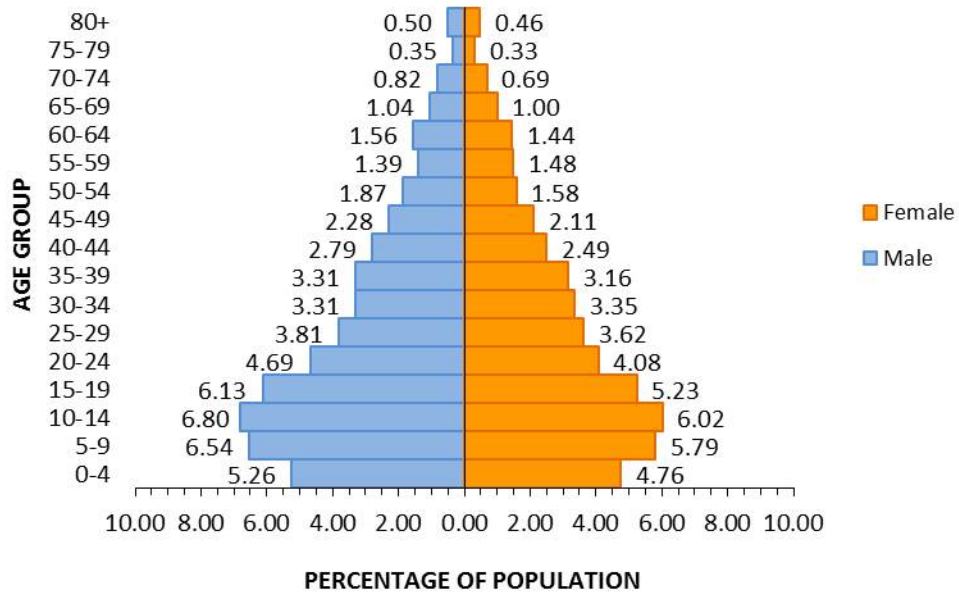
In fact, the difference in the number of children of 0-6 years per hundred of the population is not very high in the State, there are 17.10 children per hundred among Muslims and 15.01 per hundred among Hindus. The difference in the growth rate of Hindus and Muslims in Uttar Pradesh is, however, quite high. During 2001-11, Muslims have grown by 25.2 percent and Hindus by 18.9 percent.

The difference in the growth rate of Muslims and Hindus varies widely from region to region and district to district. To understand the population dynamics of this large State, we need to probably look at the district-wise populations. But from the age pyramids of the total population of the State, it is obvious that in the contention for demographic space, Muslims do not have the same advantage in Uttar Pradesh, as they have in many other States. During 2001-11, Hindus have actually grown faster than Muslims in many parts of the State. This is true also in Bihar and to an extent in Jharkhand.

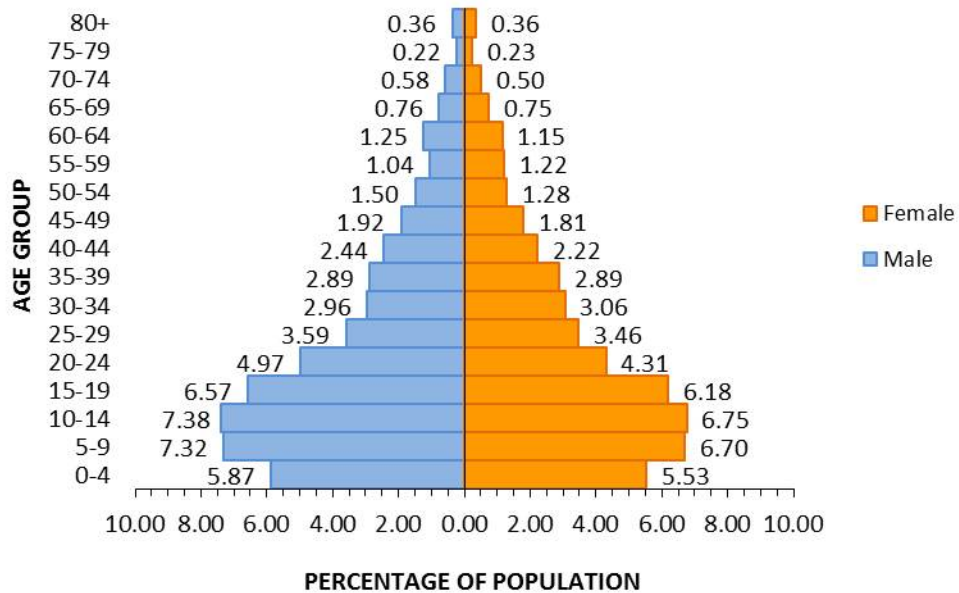
The age pyramids of the State, however, do show that the gender ratio of Hindus is considerably poorer than the Muslims for all age groups.



UTTAR PRADESH: HINDUS



UTTAR PRADESH: MUSLIMS



West Bengal

West Bengal is another State with a considerable Muslim population. It accommodates 2.47 crore of the total 17.22 crore Muslims in India; and the proportion of Muslims in the population is as high as 27 percent.

The age pyramids of the two communities in West Bengal (p.14) are very different from each other. The Muslim pyramid is about fifty percent broader at the base as compared to Hindus and is much more conical in shape. The bottom two cohorts for Muslims are indeed shorter than the 10-14 year cohort, indicating some decline in fertility. But, the corresponding Hindu cohorts are considerably smaller in relative terms.

As in several other States, the gender ratio of Muslims is higher than the Hindus in the lower age groups, but in the 25+ age groups, the gender ratio for Hindus becomes considerably better than Muslims.

Maharashtra

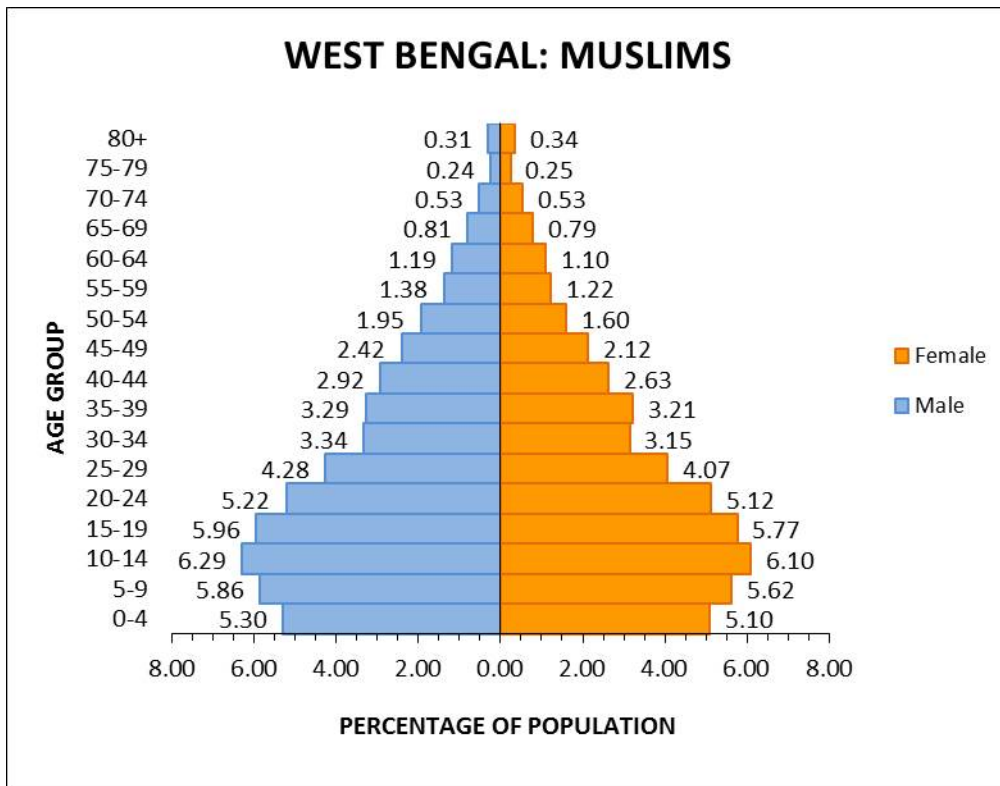
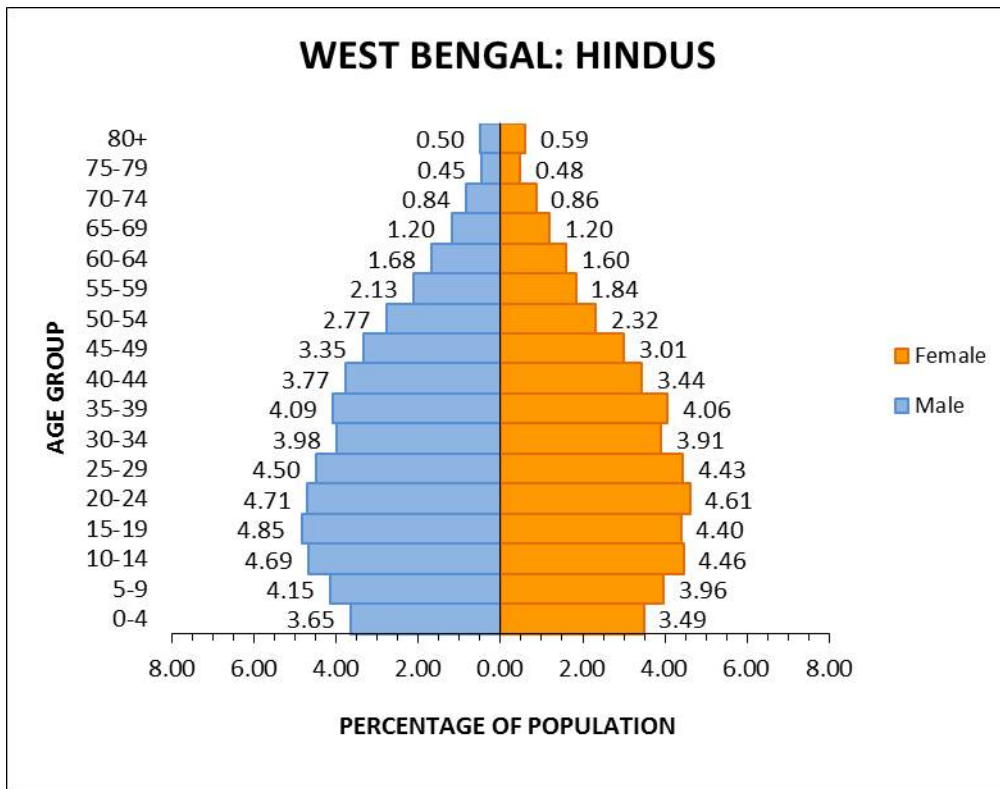
Population dynamics of Maharashtra is very interesting. It has a significant presence of Muslims and Buddhists. There are 1.30 crore Muslims in the total population of 11.24 crore; and there are 65 lakh Buddhists in the State. Growth rate of the total population has been declining rapidly for the last two decades. The growth rate of Muslims, however, was rising till 1991-2001 and remains much higher than the others. The growth of Buddhists, who are largely neo-Buddhists, has been declining faster than the Hindus.

The Buddhist pyramid looks similar to the Hindus, except that it is slightly narrower at the base and indicates a better gender ratio in all age groups. For the sake of comparison, we have also given the age pyramid of the Scheduled Caste population of the State. The age pyramid of the Scheduled Caste is only slightly wider at the base than Hindus. The pyramids indicate that neo-Buddhists are a somewhat advanced group compared to the Hindus; and, the Scheduled Castes are also not far behind. In total and female literacy rates and in the number of children per hundred of population, the Scheduled Castes of Maharashtra are slightly behind the Hindus and the neo-Buddhists are slightly ahead.

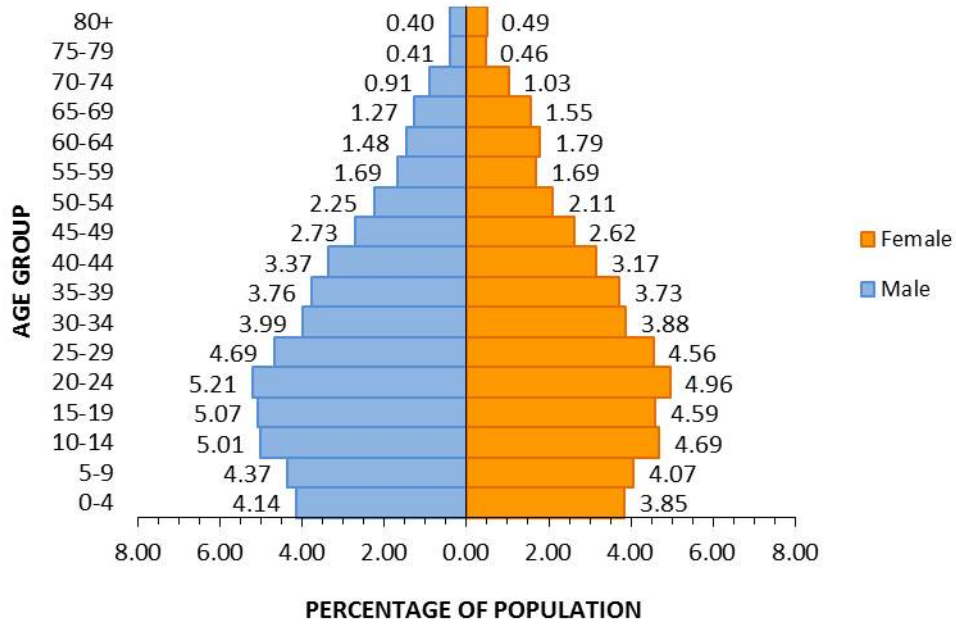
The pyramid for Muslims looks very curious. The base of the pyramid is about a quarter wider than the Hindus. But more interestingly, while there is a shortening of the cohorts below 20 years, as it is happening for all communities, yet this shortening in the case of Muslims is rather slight as compared to others.

As in several other States, the gender ratio of Muslims is better than that of Hindus in age groups below 19; for 19+ cohorts, gender ratio of Hindus is better than the Muslims. Interestingly, gender ratios of both the Buddhist and the Scheduled Caste populations are also better than the Hindus for all age groups.

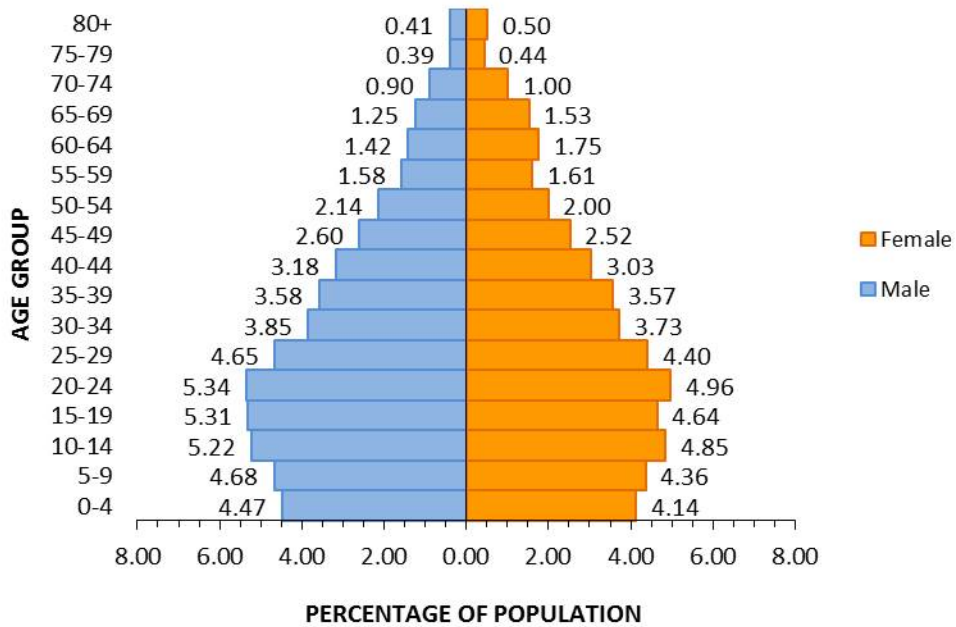
Age pyramids of Buddhist and Scheduled Caste populations of Maharashtra are on p.15 and those of Hindu and Muslim populations on p.16.

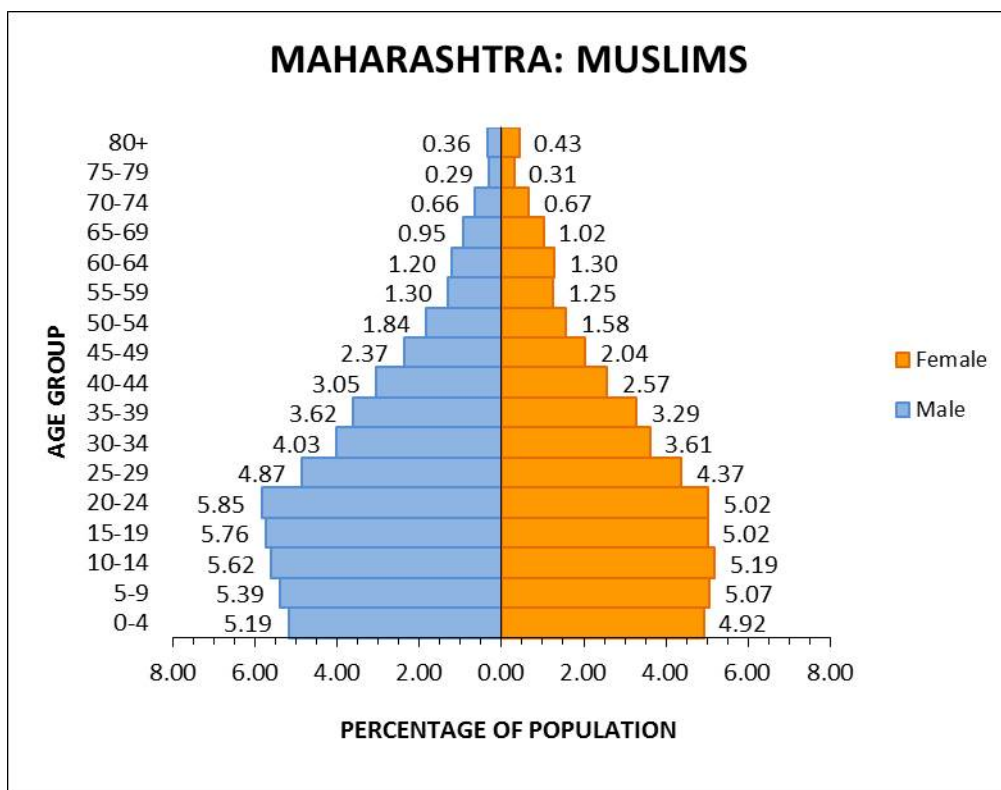
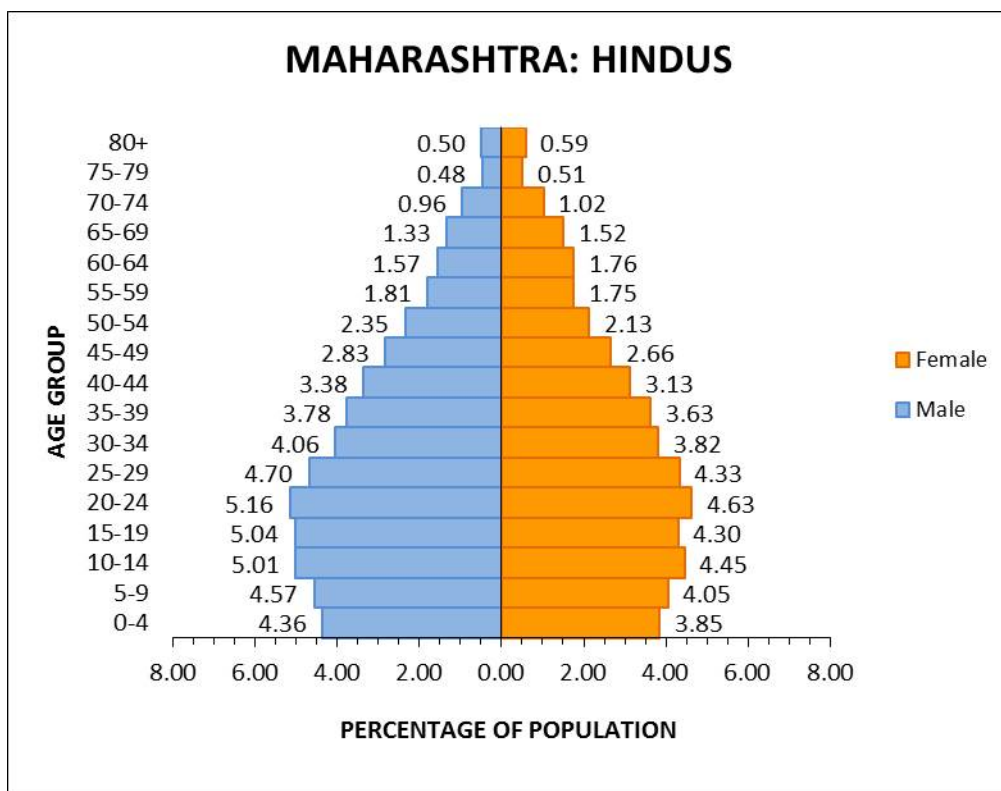


MAHARASHTRA: BUDDHISTS



MAHARASHTRA: SCHEDULED CASTES





Conclusion

We have seen the age pyramids of different religious communities for the population of India and of some of the representative States. The pyramids indicate:

1. Age pyramids of the Muslim population of India and of many of the States – including States that differ widely in their population dynamics, like Haryana, Kerala and Assam – are distinctly different from the Hindu population. The pyramids of Muslims are wider at the base and more conical in shape; and, in general, the gender ratio of Muslims is better than the Hindus, especially at the younger ages. These pyramids indicate that the higher growth rates of Muslims are likely to persist for several decades as their relatively larger cohorts in the younger age groups and the larger numbers of women in these cohorts grow up to the child bearing age.
2. Age pyramids for the larger States like Uttar Pradesh and Bihar are more complex. The age pyramids for Muslims are wider at the base even there, but the difference is not as large as in States like Haryana and Kerala. It seems that in these States, Hindus have joined the contention with Muslims for the demographic space. As we have seen, in the earlier posts, in some districts and regions of Bihar and Jharkhand, and also Uttar Pradesh, Hindu growth during 2001-11 has been better than Muslims. For these States, it would be instructive to look at age pyramids of the populations of different districts and regions, individually.
3. Age pyramids of Christians, Buddhists, Sikhs and Jains indicate populations that have begun to stabilise and perhaps contract. This is also true for Hindus in Kerala and to an extent even in Assam.
4. Age pyramids of Buddhists, in general, indicate a population that is somewhat more advanced in demographic attributes than the Hindus.
5. In Maharashtra, which accommodates an overwhelming majority of the new converts to Buddhism, age pyramids of the Buddhists indicate that they are somewhat more advanced than the Hindus of the State; the age pyramid of the Scheduled Castes, from which most of the neo-Buddhists are drawn, indicates that they are also not much behind the Hindus in demographic attributes. Gender ratio of both the Buddhists and the Scheduled Castes are better than the Hindus for all age groups.
6. Age pyramid of Jains indicates a population that has already begun to contract or is on the verge of it. Since Jains are essentially a sub-group within the Vaishyas, their age pyramid may be representative of the Vaishyas, and perhaps also Brahmins, in general and may suggest that populations of the so-called ‘upper castes’ in India have begun to reach the stage of contraction.
7. Age pyramids graphically show the differences in the population dynamics of different communities. But these also give a great deal of information about both the sociological and demographic attributes of different population.
8. It is instructive, educative and perhaps entertaining to look at these deeply meaningful graphics for different religious communities. These do indicate that there is much that separates different religious communities and groups in India.