

Quadrant II – Notes (Module Wise)

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Unit No. III: Composition of Population

Module Name: Composition of Population: Age & Sex

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- Age is a more complex characteristic than that of the sex.
- The age is normally defined by a person at his/her last birthday at the time of the survey.
- Thus, demographically, age is considered as the completed years while many cultures use age with varied other meanings.
- The age-sex distribution conveys the relative numbers of children, young and old as well as the balance between men and women at different ages.
- Almost all population characteristics vary significantly with different ages. As a component of population analysis, most of the analysis is based on the age-sex structure of the population.



Source: https://commons.wikimedia.org/wiki/File:India_population_density_map_en.svg

- South Sikkim had the highest sex ratio in the age group of 0-6 years (1036), followed by Upper Siang (1018) of Arunachal Pradesh and Pulwama (1017) of the Kashmir Division (J & K).
- The scheduled tribes dominated districts of Bastar (1014) and Dantewala (1014) of Chhattisgarh have a high sex ratio of more than 1000 females per thousand of males.
- According to the Census of 2011 Lahul & Spiti (H.P.) and Tawang (Arunachal Pradesh) have a high sex ratio in child age group (0-6), being 1013 and 1005, respectively.

- **Top Ten districts in Child Sex Ratio in the Age Group of 0-6**

District	State	Sex Ratio
South Sikkim	Sikkim	1036
Upper Siang	Arunachal Pradesh	1018
Pulwana	Jammu and Kashmir	1017
Bastar	Chhattisgarh	1014
Dantewada	Chhattisgarh	1014
East Kameng	Arunachal Pradesh	1011
Kupwara	Jammu and Kashmir	1010
Senapati	Manipur	1007
Mokokchung	Nagaland	1004

- **Purpose of Age & Sex Data**

- Age-sex structure conveys the relative numbers of children, young and old as well as the balance of men and women at different ages.
- Data is useful for formulations of several country-specific policy-making and planning purposes.
- As a component of population analysis, most of the demographic analyses are based on the age-sex structure of the population.
- The future population growth also critically depends upon the age-sex structure.

- The data is considerably used in the field of health, social, economic, and political processes, both present and future.
 - The different age-sex compositions result in different proportions of the population in the school, labor force, older ages for social security systems, etc.
 - The fruitfulness of age data is noticeable when it is cross-classified by variables like educational attainment, marital status and economic activity which alter with ages in different patterns or forms.
 - Apart from demographic concerns, the data of age-sex structure is required for age-specific analysis for planning, scientific, technical, and commercial purposes.
- **Measuring Age and Structure**
 - **Age composition:** Age groups (e.g., 0-14 years, 15-64 years, and 65 years or above).
 - The changing structure of the population in each of these broader age groups, reveals many possibilities to understand the age composition of the population as well as the sex distribution across these ages.
 - As per Census 2011, India has a moderately significant proportion of the people in the younger age groups in the world.
 - Around 31 % of the population of the country belongs to the age group of 0-14 years according to Census 2011.
 - The adult population between the age group of 15-59 years constitute 60.5% of the population.
 - **Dependency Ratio:** Important way to measure age structure is by computing Dependency ratio.
 - It is a ratio of economically active to the economically inactive population.

- The age-sex structure of a population is a fundamental determinant of the numbers of demographic events which form the basis of the services that population will require, e.g., schools, care homes, maternity services, etc.
- *Dependency ratio = Number of people aged 0-14 and aged 60 and over / Number of people aged 15 – 60 × 100*
- **Population Pyramid:** The population pyramid shows the age-sex structure of a population.
- Age - sex pyramids are also known as population pyramids.
- The information is graphically displayed to improve understanding and ease of comparison.
- They are also potentially very informative on the history of a society and its prospects.
- The importance of the age-sex structure as it acts as a starting point for any demographic investigation.
- Sex-Ratio = Number of females/Number of males x 1000
- Sex ratio in the country had always remained unfavorable to females.
- The sex ratio in India is much lower as compared to Russia, Indonesia, the USA, China, Nigeria, and Japan.

- **India: Sex Ratio (1901-2011)**

Census Year	Sex Ratio (Females per 1000 of males)
1901	972
1911	964
1921	955
1931	950
1941	945
1951	946
1961	941
1971	930
1981	934
1991	927
2001	933
2011	943

- **Importance of Age - Sex Structure**

- i. The importance of age-sex structure is crucial not only in population studies but also in the several branches of social sciences that deal directly or indirectly with the population

variables like social, economic, political, biological, genetic, geographical sciences.

- ii. It represents the number of people at given age and sex in society and is built from the input of births, deaths, and migration of every age.
 - iii. It is an expression of the number of people found in each age group of the population by sex.
 - iv. All the rate and ratio in demography are generalized for either age or sex or both.
 - v. It helps in projecting and estimating future trend to make it useful for planning purposes.
 - vi. It is the result of significant and interrelated determinants such as fertility, mortality, and migration, which has accomplished during the continuance of the oldest inhabitants.
 - vii. It influences birth and death rate, national and international movement, the composition of marital status, workforce, the gross domestic product, planning concerning educational and medical services and housing, etc.
- The distribution of population by age and sex are among the most fundamental demographic characteristics of human populations as well as of demographic statistics.
 - It plays an important role for the development of any society. The economic and cultural life of society critically depends upon the age and sex structure of the population.
 - Moreover, the planning process of any country makes use of this data extensively for the development of the economy and culture as well as for its individual regions.
 - It is well known that many developed countries and international agencies study the distribution of the population by sex and age

across countries as it has significance to the world population trajectory.

- The future size and structure of the population depend on the current age-sex structure of the population. Moreover, in the current context of global concerns of environmental degradation and climate change, the age-sex structure and its future growth carry an important role in the global sustainability.