

# **Population Distribution**

**10**

**CHAPTER**

## **INTRODUCTION**

Population distribution is an important aspect of population study in the economic circle. As much as it is not possible that human beings will concentrate in a single area, they are therefore found in different areas, different occupations and are in different age groups. Its knowledge will enable us to understand certain elements in population study. In this chapter the students will be introduced to the various elements of population distribution such as age distribution, sex and occupational and geographical distribution of population. Students will also be acquainted with the concept of census and its importance to any country.

## **OBJECTIVES**

*At the end of this chapter, students should be able to:*

- ◆ State what is meant by *distribution of population*;
- ◆ Differentiate and explain the different concepts of population distribution;
- ◆ Define optimum population and its characteristics;
- ◆ Define census and its importance to any economy.

### **10.1 Distribution of Population**

Population distribution refers to the composition and structure of population. This includes the geographical, age, sex and the occupational distribution of the population.

#### **10.1.1 Age Distribution of Population**

Age distribution of population means the grouping of different individuals in a country based on the age groups: children, adult and the aged. In terms of figures it could be grouped into ages within 0–15 years, 16–34 years, 35–65 years, and so on. Age distribution of population categorises the population into different age groups of children and teenagers, working class (active labour force) and the old people. Usually, age groups within 0–15 and those above 65 years are referred to as the dependent population because they are not very active and productive. However, the age group within 16–65 years are known as the working or economically-active population. This is the population segment that has the energy to work within a particular economy. They are also referred to as the labour force. The categories of the age group sometimes differ among countries. In fact, even within the age groups, certain distribution can be made. For instance, you would have age groups 0–5 years, 10–15 years, 30–60 years, and so on.

#### **Advantages of age distribution of population**

- Age distribution helps to determine the existing size of the country's labour force.
- It determines the dependency ratio within the population.
- It can help to determine the pattern of production in an economy.
- Age distribution determines the focus of government budget.
- It helps to determine the structure of the population growth in the country.

#### **Disadvantages of age distribution of population**

- It could lead to discrimination in the distribution of resources.

#### **10.1.2 Geographical Distribution of Population**

The geographical distribution of population refers to the extent to which a particular population spreads over – certain land coverage and certain areas may be highly populated, while some will be sparsely populated. For instance, Lagos occupies a smaller land space compared to Ibadan but the population of Lagos residents is about 4 or 5 times larger than that of Ibadan. Nigeria, according to the 2006 national survey as documented by the National Bureau of Statistics, occupies a land space of 923,768 square kilometres, while her population density is about 151.6 per square kilometre. This is calculated by dividing the population by the land area in square kilometre. This means there is an average of about 152 people to a square kilometre in Nigeria. It also has over 140 million people spread across the given land space.

#### **Factors affecting the geographical distribution of population**

**(a) The availability of socioeconomic amenities:** Some areas have dense population concentration because of the availability of social facilities like good roads, pipe-borne water, electricity, sports and other recreational facilities, while some other areas lack most of these facilities. Moreover, some have high population density due to available economic activities such as developed markets for trade and commerce. Other places merely have some primitive local markets or industries, which are also more concentrated in some areas than others. All of these certainly affect the size of a particular population settlement.

**(b) The land topography:** Topography of a land means the natural physical features present in a particular geographical location. Some of these features are rivers, valleys, rocks, mountains and forests. All of these features in one way or the other determine the extent to which people will reside in a particular place. It is easier to settle in plain lands than rocky areas because of the difficult terrain.

**(c) Climatic factors:** An area that is characterised by unfavourable climatic conditions such as barren land, marshy soil, extremely hot region and desert will have very few people while a fertile land for agriculture and a relatively temperate climate will attract greater population.

#### **10.1.3 Occupational Distribution of Population**

Occupational distribution of population is the breaking down of the population of a country into various occupational activities engaged in by men and women so as to earn a living. There are three main types of occupation. They are the primary, secondary and tertiary occupation. In primary occupation the population is engaged in the production of goods from their original or natural state. It includes farming, forestry, fishing and mining.

Secondary occupation is the type of occupation where goods produced from the raw form are transformed into semifinished or finished products. In the secondary occupation, goods are changed from the primary stage. An example of this type of occupation is construction industries and manufacturing. Most of the advanced countries like Britain, Germany, Japan, France, Canada, and USA have a large concentration of this type of occupation in their economies.

**Tertiary occupation:** This is the third level of occupational distribution among certain population. It is also referred to as the service sector because most of the economic activities here involve the provision of services. It does not involve the production of tangible or physical products such as cars, textbook and cell phones. Services are provided by drivers, road safety personnel, police, barber, hairdressers, carpenters, electricians, lawyers, doctors, and so on. Table 10.1 shows the distribution of people engaged in the service sector in Nigeria from 2001 to 2005 by their type of service rendered. The table does not provide figures for those engaged in other services such as the security agents.

#### **Factors affecting occupational distribution of labour**

- (a) The level of education
- (b) The culture of the people
- (c) Natural endowment
- (d) Availability of social and industrial infrastructure

#### **10.1.4 Sex Distribution of Population**

Sex distribution of population is concerned with the division of the population into the two main gender groups of male and female. All population in the world is generally grouped into male and female gender. This is done in order to know the strength (in terms of number) of both sexes. The number of males and females in the country's

**TABLE 10.1** Distribution of People Engaged in the Service Sector in Nigeria

Economic Activities in the Tertiary Occupation	2001	2002	2003	2004	2005	Total
Hotels and tourism	572,039	556,216	544,291	538,214	520,556	21,731,316
Transport	179,180	192,873	203,266	189,142	241,354	1,005,815
Communications	193,682	198,897	315,039	325,047	467,260	1,499,925
Education service	12,444	18,402	20,394	21,887	25,781	98,908
Utilities	14,565	14,841	15,172	16,448	14,898	74,922
Banking	24,274	24,896	24,453	25,312	29,883	128,813
Distributive trade	162,478	177,094	183,549	190,948	196,511	910,580
Real estate and business service	85,552	92,982	94,208	93,996	103,348	470,081
Private professional service	7,637	7,797	8,804	9,594	10,206	44,040
Health	318,367	346,082	347,300	355,726	330,042	1,697,530
Finance	28,189	28,747	25,350	26,846	52,398	161,530

Source: National Bureau of Statistics, 2007.

population can be found by what is called the sex ratio, which divides the number of male by the number of females in a given population. The sex distribution of the population for Nigeria according to 1991 and 2006 census figure is shown in Table 10.2.

**TABLE 10.2 Population of Nigeria by Sex and Percentage. 1991 and 2006 Population Figures**

Year	Male	%	Female	%	Total	%
1991	44,529,608	50	44,462,612	50	88,992,201	100
2006	71,706,859	51.2	68,293,683	48.8	140,003,542	100

When there are greater numbers of females than males in a population, there is the likelihood that the rate of birth will increase in that population because more women will get married and they will increase the number of children in the population. The dominance of women population could also affect the size of the labour force because women are not likely to be in employment. On the other hand, the implication of a greater number of males in a population is that it is most likely to increase the productive capacity of that population as it may have more of men in the working class (other things being equal).

## 10.2 Optimum Population

Optimum population is that ideal population which when combined with the other available resources will yield the maximum (highest) returns or income per head. Given the stock of natural resources, the technique of production and stock of capital in a country, there is a definite size of population that will correspond with the highest Per Capita Income (PCI) other things being equal. However, if there is any deviation from the optimum size of population the level of welfare will be affected. The optimum population strikes a balance between the size of the population and the available resources.

## 10.3 Census

Census is a civic exercise which involves the headcount of individuals living within a given population. Most countries in the world conduct census so as to estimate the number of people (male, female, children, adult, young and aged) residing in that country. Hence, it is in most cases referred to as population census. In its simple terms, census could be defined as the general headcount of all the residents in a country or a specified geographical area. Census is usually conducted periodically in

most countries of the world. In Nigeria, the last census was conducted in 2006. Before the 2006 population census, an earlier one was done in 1991. This is roughly about 15 years interval. The first census in Nigeria was conducted in the early 1950s precisely 1952/1953 when the population was estimated at 31.12 million.

### Importance of census

**(a) For planning purpose:** The knowledge of the size of a country's population will enable it to plan effectively for the country's development needs.

**(b) Evaluate population dynamics:** The knowledge of the size of the population will enable us to know whether the population is increasing or decreasing. This is in terms of

number of (i) newly born children, (ii) female, (iii) male, (iv) workers and (v) dependents. This will enable us to know by how much the facilities or resources are available to which category of the population.

**(c) Management of people and resources:** A good knowledge of the population size conducted through census will help in easy management of people and resources in a particular place. It will be easy for us to understand the method to adopt in managing the people and how to distribute the available resources to the population. For instance, a large population would need larger number of administrators while a fewer population would need fewer administrators.

**(d) Determination of PCI:** The knowledge of population will enable us to know the PCI of a country. That is, the average contribution per person to gross domestic product (GDP) of that country. It is usually estimated by dividing the national income by the population of that country.

Thus,

$$\text{PCI} = \text{GDP}/\text{population}$$

**(e) Formulation of policies:** The outcome of the population census helps the government to formulate relevant policies with respect to provision of education, health, transport, roads, water, and so on to the people.

**(f) Availability of data:** It provides necessary data that are useful for other numerous purposes in the course of the development process of a country or other socio-economic activities in a country.

**(g) Political instrument:** The population of a country could be a means of fostering the political strength/weakness of a country in the international cycle.

**(h) Net migration:** It could help a country to know the rate of net immigration (people coming into a country and those going out).

## Problems Associated with Census in Nigeria

**(a) The cost:** The amount usually involved in conducting the census in Nigeria is large. Although, most West African countries such as Nigeria are poor and many people live below the poverty line, the cost of conducting national census is very high when related to the value of goods and services produced in the country. This may be due to the lack of existing facilities that could aid easy conduct of census.

**(b) Problem of illiteracy:** Most Nigerians are illiterates and do not know the importance of census exercise; hence, they are unwilling to disclose their identity.

**(c) Cultural and religious beliefs:** Some tribes, for instance, do not believe in counting of children. They see it as a taboo to count children.

**(d) Problem of inadequate infrastructure:** In Nigeria the problem of infrastructure is acute. Most places are inaccessible to enumerators due to bad roads. In this case, some enumerators may decide to frame up figure(s) thereby providing unreliable data.

**(e) Problem of administrative bottleneck:** Some government and non-government establishments find it very difficult to provide existing data due to unnecessary bureaucratic procedures. For example, finding number of births and deaths from health offices is not easy to come by.

**(f) Problem of unskilled manpower:** Some of the census enumerators are illiterates and unskilful. Most of them do not have the technical know-how in terms of the type of information and questions they need to ask the people. This makes some respondents to conceal some important information which could otherwise have been useful for the success of the census exercise.

## 10.4 Migration

Migration refers to the movement of people from one geographical location to another. For some reasons, people migrate from one place to another. Some of these reasons are mainly economic, that is, looking for greener pasture or sometimes for some religious reasons, for example, going on pilgrimage. Some people could also move from one location to another due to the incident of war or other natural disasters. There are different forms of migration, namely;

**Rural–urban migration:** This refers to the movement of people from rural areas to cities. Usually most rural areas are void of (i) commercial and business activities, (ii) industries, (iii) modern social and infrastructural facilities and (iv) opportunities for employment. Most people in the villages prefer to move to the areas where (a) social

amenities are readily available and (b) where there is employment and economy. Rural–urban migration is a common practice in Nigeria and other West African countries. This is mainly due to the negligence of most rural areas by the governments. Attention and concentration of infrastructural facilities and other social amenities are usually provided in state capitals and federal capitals such as Abuja or Lagos. This is usually done at the detriment of those living in rural areas. In this situation most rural dwellers in an effort to enjoy these facilities migrate to urban centres.

### **Consequences of rural–urban migration**

1. Overpopulation.
2. Over usage of existing facilities.
3. Low agricultural productivity as most rural residents would have moved to the cities.
4. Could lead to the problem of unemployment among youth in the cities.
5. The lack of unemployment could lead to increase in crime rate in the urban area.

### **Consequences of urban–urban migration**

This is a situation where people move from one city to another city. For example, movement from Lagos to Abuja or from Enugu to Kano. The purpose could be for trade or transfer or in search of greener pasture which may not be available in the former place of residence.

Natural disaster or other forces could also make people to migrate from one place to another.

## **Summary**

This chapter examines population distribution, census, and migration; under the population distribution the following were discussed: geographical, occupational and age and sex distribution. The chapter also focuses on the census and importance and problems of census in Nigeria. Finally, rural–urban migration, rural-migration and urban–urban migration were treated.

### **Class Activities**

- (a)** Teacher and students should go on an excursion to major town centres to see the population according to sexes, occupation, age, and so on.
- (b)** Teacher should guide a class discussion on their findings.

## **Revision Questions**

### **Objective Questions**

1. A review of occupational distribution of population from time to time helps us to know the
  - (a) Rate at which the population grows
  - (b) Number of people that makes up the labour force
  - (c) Efficiency of the working population
  - (d) Industries which are becoming less important.
  - (e) Number of people that are not employed (**SSCE 1988**)
2. A nation with a working population that is insufficient to exploit its resources is said to be
  - (a) Over populated
  - (b) Under populated
  - (c) Experiencing decreasing population
  - (d) Experiencing increasing population
  - (e) Having optimum population (**SSCE 1993**)
3. The optimum population of a country is reached when the
  - (a) Production of goods and services is less than optimum
  - (b) Output per head is at its highest with a given volume of resources
  - (c) Total population increases with a given volume of resources.
  - (d) National resources increase as population increases.
  - (e) Working population rises at a geometrical rate. (**SSCE 1997**)
4. The population census was conducted last in Nigeria in the year
  - (a) 1991
  - (b) 2005
  - (c) 2006

- (d) 2007
- (e) 2008

5. Census figures of most countries in West Africa are inaccurate because of:

- (a) low cost of enumeration
- (b) low per capita income
- (c) high degree of illiteracy
- (d) high level of civilization (**SSCE 2002**)

## **Essay Questions**

1. Discuss the importance of census to a nation's economy.
2. What are the implications of a female-dominant population?
3. What are the factors that determine the size of a population?
4. (a) Explain any two causes of a declining population  
(b) Outline any three factors which determine the size of your country's working population (**SSCE 2004**)

## **Glossary**

**Population:** This is the spread of human beings over the given span of land area.

**Census:** This is a head-to-head count of the citizens of a country.

**Rural-urban migration:** This is the movement of people from the villages to the cities.

**Rural-rural migration:** Movement of people from one village settlement to another village or remote settlement.

**Urban-urban migration:** The movement of people from one city or town to another city.