

RELATIONSHIP OF DEMOGRAPHY WITH OTHER SOCIAL SCIENCES

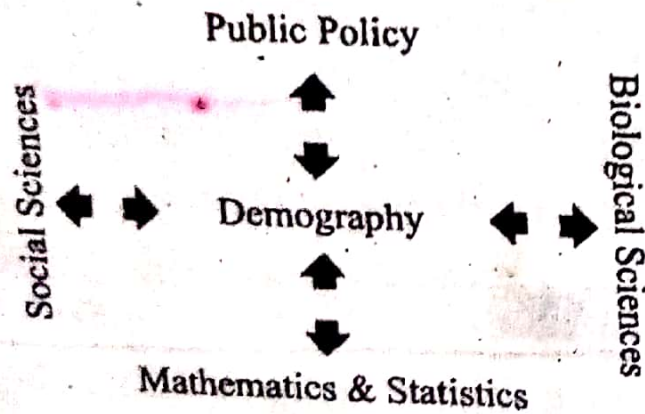


Figure 1.1

Source: <http://www.demogr.mpg.de/general/default.htm>

Demography is essential for understanding population dynamics. It cuts across many conventional disciplinary boundaries, and combines rigorous mathematics and reliable statistics. It depends, to a certain extent, upon both social and biological sciences. Since people are an essential component of a society, it is important to understand various aspects of people, or the population. The interdisciplinary nature of demography can be understood from Figure 1.1.

Analysis of demographic data is based on the methodological sciences of mathematics and statistics. These disciplines

provide a secure technical footing for the discipline of demography. Demographers depend upon social and biological sciences for explanatory frameworks in order to understand and explain the determinants of demographic behaviour and population trends, and to explore their relationship with wider trends in the society and in the economy. Advances in demography influence the social and biological sciences and enhance and improve their perspectives on population themes. Demography provides important and relevant information for public discussion, and the formulation and analysis of policy.

Demography is a discipline that prefers facts over speculations, and a commitment to scientific rigor. Its practitioners overwhelmingly eschew hyperbole and oversimplification of the complex issues facing society. As we enter the twenty-first century, demography has the potential to build two bridges—one connecting the social sciences with biology and other branches of the natural sciences, and the second linking theory and policy concerns. The most important objective of demographic studies is to understand the characteristics of populations as a whole. This would include their total size, their composition by age and sex, their geographical and occupational distributions, and the trend in time of all these elements. Demography interacts with virtually all the social sciences and makes use of variables from other disciplines, for example, economics, social psychology, sociology, biology, geography and so on. There are also various subdisciplines of demography, such as economic demography, social demography, historical demography, mathematical demography and so on. These are based on the contributions of social scientists to the study, and the explanation of the complex relationships between demographic and socio-economic, political and cultural variables. We shall now look at the relationship between demography and other sciences.

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study of society

Aristotle said

Demography and Sociology

study of population

Demography is mainly concerned with the collection of material and the study of various aspects of a country's population. It is concerned with the biological, economic aspects of population change and their consequences. Sociology is based on the premise that man is a social animal. Demography also accepts that human beings are a unit of society, and they form a group in which individuals are born and in which they die. In spite of these dynamics, the group remains the same—it changes only in size. Sociologists treat demography as a discipline which does not merely collect figures, but which is necessary for understanding the social reactions and pressures. This provides a link between the two subjects. Both sociology and demography study issues related to birth, death and marriage—age at marriage, marriage

systems, marriage customs and traditions, divorce, death and so on. In fact, it has been said that demographic behaviour is an aspect of socio-psychological behaviour of individuals, and has an effect on demographic processes and events. There are several socio-economic factors that influence demographic behaviour.

The close relationship between sociology and demography is revealed in the fact that problems associated with population are also considered to be social problems. For understanding and solving population problems, social approach is considered necessary. For example, if the growth rate of population is to be restricted and brought down, the whole outlook of society will have to undergo a change. A climate will have to be created in which people can realize that children are not necessary for security in old age—the state can help the aged and the disabled, and provide adequate security for them. While analysing the collected data, if a demographer ignores the social aspects, the demographic analysis will be rendered useless. The close relationship between sociology and demography is bound to be there because of the close link between society and human beings. Both are interdependent upon each other, and each cannot survive without the other. Unless there is a society, there can be no demography, and sociology needs a society with human beings to study.

Demography deals with birth rates, which are directly linked to the institution of marriage. This institution is of importance to a sociologist. The rate of growth of population depends not only on biological factors, but also on the social outlook regarding the birth of children. The social outlook is another factor that binds sociology and demography. Demographers are also interested in death rates in the society, which are in turn influenced by, and in turn affect, the social conditions. These include social habits, environments, living conditions of the people and so on. Both sociologists and demographers study the extent of scientific development in the society, and its contribution in checking the mortality rates. Both subjects study population, social organization, socialization patterns and their impact on institutions such as the family and on demographic processes such as fertility and mortality. Associations, collective behaviour, ecology, urbanization and various groups such as minorities, professional groups, tribes, etc. are commonly studied by sociology as well as demography. Fertility rate, mortality rate and migration problems are considered not only by demographers, but also by sociologists. This is one of the reasons why demography is considered a subfield or a branch of sociology, with a difference that it has more specialized variables and tools of analyses. Even in the academic world, demography and sociology are placed together. In fact, in many institutions of higher education, demography is taught in the Department of Sociology.

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$$R = \frac{B - P}{P} \times 1000$$

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When a demographer deals with birth statistics, he has to remember that each of the figures represents a son or a daughter; when he deals with deaths he has to remember that each represents a tragedy, when he deals with migration he has to remember that it means movement

dealing with a basic institution of human society.

—Frank Notestein in Srivastava

Despite such close relationship between demography and sociology, there are differences between the two disciplines. Demography is a subject that deals with quantitative analysis of figures and data collected through various demographic methods, such as census, sample surveys and vital registrations. Sociology, on the other hand, studies different social institutions and their interactions with one another. Demography is quantitative, whereas sociology is qualitative in nature—it is made-up of non-quantitative descriptions and generalizations about social patterns and structures, which cannot be easily subject to quantification. Demography makes use of several statistical and mathematical methods of data analysis. Certain 'distributive' aspects such as age, sex, occupation and so on study society, whereas sociology studies aspects such as social structure or culture. It also uses such methods, though in a much more limited way. Another difference between the two disciplines is that in demography, the data are divided into small units, and each unit is scientifically studied and analysed. On the other hand, sociology combines small units such as language, religion, marriage, etc. into one large whole, and studies it thereafter. Thus, while demography begins from the whole and then goes to smaller units, sociology combines units into a whole and studies them accordingly.

Social demography is an important branch of demography, which is emerging in different parts of the world. It deals with the social causes and consequences of changes in various aspects of population. Demographic and socio-cultural factors are seen to be mutually reciprocal. Various social and psychological factors, which include values, attitudes and beliefs, influence demographic processes. Social demography deals with relationships between demographic and social phenomena. It is different from pure demography, which deals with relationships among various demographic variables that make the demographic system, all demographic processes take place within a social context. Social demographic theory is strongly influenced by sociological theories. Davis and Moore state that demographic changes can be of two kinds:

- who perform action
Good - bad*
- i. Reflexive changes, which affect other components in the social system and in turn bring about changes in the component initiating the change. *long/permanent change*
 - ii. Behavioural changes, which involve human decisions. For example, in societies where there has been a long-standing problem, of increasing population, people may choose from a number of alternative methods of birth control.

Social demography also studies the influence of informal groups on fertility and family size; social demographers consider the high female dependency ratio to be a major cause for high fertility, and emphasize on the independence of women for reducing fertility rates. They feel that women should enjoy equal status as men in taking fertility decisions.

Demography and Economics

*how society use limited resources
at all working a national Economy*

Over the years, there has been a change in the relationship between demography and economics, and in many countries today, demography is treated as a branch of economics. Economics is the study of various economic aspects and problems of members of a society, in which demographic and population studies play a vital role. With an increase in population, economic activities and problems are bound to increase. Population problems are connected with economic issues of employment, per capita income, education, transportation, industrialization and so on. These problems are magnified in developing and underdeveloped countries, where the populations are large and the rate of growth of populations is high.

Demography influences the field of economics in different ways. It is a means of labour, and becomes the source of production. Changes in population influence labour force and the source of production. Economic activities are, in general, aimed at the welfare of people. Population increase will lead to increase in all economic activities. Population influences the per capita income, production, labour, income distribution, industrialization and so on. In developing and underdeveloped countries where populations are large, labour-intensive techniques are used in production, in order to provide employment to the maximum possible number of people. In developed countries, where the populations are comparatively small, capital-intensive techniques are more popular.

Population is also an indicator of economic development and growth. In general, a larger population would hinder the growth rate and development of a country. In fact, population explosion has threatened the economies of countries across the world. Developing and underdeveloped countries are trying to decrease the growth rate of their populations in order to improve the economic conditions of their people.

The relationship between demography and economics can be summed up as follows:

- i. Increase in population will force the nation to consider sources of production, distribution and consumption, on the one hand, and provide more employment opportunities, on the other.
- ii. Population explosion will force the country to divert certain resources to the production of consumables and non-consumables which are required by children and the production of which is unavoidable.
- iii. Decrease in the mortality rate and increase in life span will force a country to produce more goods for the consumption of the aged.
- iv. Population growth helps economists in finding out the percentage of resources needed at a particular point of time for meeting the basic necessities of the people. It is necessary for planning for the future educational, health and infrastructural facilities.
- v. Demographic data is required to know the availability of labour force within the country. It also helps economists in understanding the distribution of the working population across various occupations. It also indicates the working and non-working population, as well as the old and young dependency ratio.
- vi. Demography helps economists in finding out the extent of unemployment, and the types of training and opportunities required to decrease or remove unemployment.
- vii. Population problems are closely linked to economic problems. One of the basic causes of most economic problems is overpopulation. These result in unemployment, poverty, increased young dependency and so on.
- viii. Population is also directly linked to the food problem. The more the population, the more difficult it becomes to feed the population.
- ix. Population growth, size and distribution can be viewed from the point of view of economic growth and change.

Despite such a close relationship between the two subjects, both have a separate and distinct identity of their own, and have separate entities and existence. The scope of economics is wide, and one aspect of its scope is demographic data. It consists of a planned use of economic resources, and also suggests ways in which these resources can be properly exploited. In comparison to economics, the scope of demography is limited to the collection and analysis of data. The demographer provides the data, which acts as a foundation on which economists build the superstructure.

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