## **Original Paper**

# Relationship of Demography with Other Sciences: A

## Sociological Appraisal

Mohammad Taghi Sheykhi<sup>1\*</sup>

<sup>1</sup> Professor Emeritus of Sociology, Alzahra University, Tehran, Iran

<sup>\*</sup> Mohammad Taghi Sheykhi, Emails: mtshykhi@alzahra.ac.ir

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### Abstract

Demography as a dynamic discipline is highly related with other sciences; especially social sciences. It helps other sciences, and is benefited by other sciences too. Demography being statistics-based, widely helps economics, sociology, social development, geography and many other sciences. Sociology proves how integration of sciences help in the development of societies in general. Social change happening in various dimensions, is in need of a close relationship of demography and other social sciences. Social science which deals human behavior in the changing social environment is a part of expanding knowledge. Demography is the science that analyzes the size, structure of human community, are aspects of biological, geographical, economic, etc. Geography also being the science related to natural environment is widely related to sociology.

### Keywords

Demography and geography, Demography vs sociology, Demography and anthropology, Demography and economics, Sociology

### 1. Introduction

Sociologically speaking, demography being an interdisciplinary subject, is widely related with other disciplines. It gets help from other disciplines and at the same, helps other disciplines. Demography is highly interrelated with social sciences. The functionality of demography is dependent on such a relationship. When we talk of economics, we have to make use of demographic variables/indicators. Without the demographic indicators, it is almost impossible to measure an economy. Similarly, another immediate aid of demography is known as geography which provides the dimensions of an area to demographically measure it. Demography is closely related with sociology, and without which we cannot measure social change, social development, etc. Demographic indicators are the only means to

measure how a society must plan its development and change. Birth, mortality and migration are the main indicators affecting the society as whole. Demography is also in close relationship with anthropology which deals with cultural change appearing in a society. Demography is also related with psychology which deals with morale and individual values of a people in a society. Any population change must be in accordance with psychological norms of a people in a society. Demography is also associated with law, with marriage rights, women's rights, educational rights, etc. At the end, we must add that demography is tightly related with statistics—commenting on statistics obtained through demographic statistics. In year 2022, world population of 7,963, births per 1,000 population was 8, rate of natural increase was 0.9 %, and urban population was 57% (WPDS, 2022).

As already mentioned, demography is a science that is related to population changes in the fields of births, deaths and migration. This scientific field, which has been proven by population analysis methods, is related to other fields of social sciences such as sociology, economics, anthropology, political science and even biology, statistics, law, etc. Demography, through biology or biology, finds out how and how little races exist. Human ecology is also closely related to demography. Therefore, the health, preservation and maintenance of the environment depends on science and accurate information about drought and population changes. Population growth endangers the environment and weakens the capacity and power of different communities. Purpose, resources and capabilities that should be responsive to the population. Likewise, portability means green resources, arable land and the environment to what extent it can meet the needs of the population.

In order to have a high capacity and maintain it, demographic analysis and explanation must be done. For urban planning and environmental health, demographers and social planners are somehow connected to biology. Only if demographic science maintains a regular relationship with other social sciences can it play its role in the best possible way.

#### 2. Method of Research

Methodology used in the present article is of qualitative type. In that, various paradigms have been used to find out about the facts regarding pandemics during the history. Qualitative research usually studies people, events or areas in their natural settings. In finding facts for the research, the researcher engaged in careful data collection and thoughtful analysis of what was relevant. In the documentary research applied for the present research, printed and written materials were widely regarded. The research was performed as a qualitative library-type in which the researcher had to refer to the relevant and related sources. In the current research, various documents were thoroughly investigated, and the needful inferences were made. The data fed by the investigator in the present article is hopefully reliable. Though literature on pandemics is very limited, yet the author tried to investigate many different resources in order to elicit the necessary information to build up the text.

#### 3. The Relationship between Demography and Geography

Demography is closely related to geography, especially human geography. When it comes to population density, number, distribution and quality, they all relate to human geography. Therefore, the main subject and skeleton of human geography is population. In general, one of the fields that demography attaches great importance to is the science of geography.

Human geography determines what the population density and distribution should be like. In what area should the population increase or decrease? What should be the efficiency and quality of human resources? To what extent is it inadequate and ... such key information is provided to the geographer by the demographer, i.e., information about the total population, growth rate, birth rate, fertility levels, etc. in human geography. It is very important.

Because population information in Iran is limited, problems related to human geography and population density also arise. The relationship between population and the environment is shared by demographers and geographers, which is a turning point in the relationship between these two scientific fields. For example, different climatic and climatic conditions in four different regions of Iran have left different levels of population density, which should be adjusted and appropriate from the two sciences of demography and geography.

According to the Charter of Human Rights, human beings should be free to live wherever they want, but in practice this is not the case. Due to the increase of about one billion people in the world population every ten years, the displacement, migration and asylum of different groups of the population under the influence of socio-economic and political factors are inevitable. Addressing this phenomenon and modifying and coordinating it should be done through policies and predictions of human demographers and geographers.

#### 4. The Relationship between Demography and Sociology

This scientific relationship was first proposed by Kingsley Davis and has been constantly expanding ever since. In fact, the issues raised in demography are in many cases related to sociology. Areas such as fertility, socio-economic changes in population, manpower, family, organization with social structure, reproductive behavior and population are among the topics that are discussed in sociology and have in common with demography. Demography provides new information to sociology. In other words, if the sociologist uses the information obtained by the demographer, he will find stronger logic and will be able to prove himself better. Hence, demography always tries to feed sociology, and sociology helps to analyze and explain demographic data. The connection between these two branches of science is more preserved in societies where the humanities and social sciences are more prosperous. In recent years, sociologists have shown more interest in demographic data. Demographics measure fertility, set a policy for it, and bring it from normal to controlled. To have a society with a higher social order and with calculated regularities, we need demographic and fertility information, these social conditions that are usually measured and evaluated by sociologists, i.e., the conditions in which economic and social

changes in society. It arises, and it relates to individuals and families, it is still part of the realm of demography, and in fact the sociology of the future population measures it. This science studies population in relation to economic and social variables. As a result, population is a major element in sociological analysis and, under the heading of population sociology, studies various factors such as births, mortality, and migration. Thus, the interrelationship between demography and sociology is proved.

#### 5. The Relationship between Demography and Anthropology

Demographic change, population retrospective and population evolution from the past to the present are all related to anthropology, especially physical anthropology. The Oxford World Vocabulary describes demography as the part of anthropology that describes birth, death, disease, etc. Statistics Demographers are actually statistical representations of a society's population. Anthropology can start its research with the information it obtains from the population and its settlement, age structures, old age and youth, population, etc. Everyone helps anthropologists in their research. Anthropologists need statistics on strength, disease, and prevalence in research.

Contemporary anthropologists are very interested in demographic issues related to birth, mortality, marriage, migration, population shape and organization, etc. as useful variables that help them in the study of genetic variation. On the other hand, the study of races, ethnicities, gene-flow, etc., as part of the tasks of demographers, is also the subject of the work of anthropologists.

Anthropologists study only certain species of the population, while demographers study very diverse aspects of the population. While the work of anthropologists is anthropological and in many cases retrospective, the work of demographers is mathematical and statistical. Also, while there is such a difference in their research method, for the above reasons two different branches of social sciences are related to each other.

#### 6. The Relationship between Demography and Economics

The first major issue that demographics deal with is economics. Malthus, who depicted the situation of the population and gave many guidelines on the population, was an economist himself. The economic relationship of population to economic resources led Malthus to write his demographic articles. The growth of the world economy with the new method is about two hundred years old. Likewise, the basis of economics is its production, distribution, and consumption by the population should grow in harmony with production, which is itself the cornerstone of the relationship between population and the economy. What made the proper population arrangement for the industrialized countries was the economy. This means that better economic success followed better quality of the population. Therefore, following the economic development, the tastes of the population also changed and the population became in a state of harmony.

The population changed under the influence of economic conditions in the Western world. Also, European families were like 8 to 10 people in many developing societies until the early twentieth century, but economic conditions changed their tastes and value systems, reduced fertility, and brought them out of control. Today, these conditions are even more widespread. Economic development today requires a limited population but with high quality and efficiency. In order to get better service and nutrition, we need to have a controlled population. In other words, today population growth, size and distribution are discussed in terms of economic growth.

Economists believe that for every one percent of population growth, there should be four percent economic growth. That is, when the population increases, the output should be 4 to 1. If it is out of proportion, i.e., population growth is close to economic growth, a reduction in living standards and the regression of society will be inevitable. This inconsistency between population and economy, or in other words, population and economic variables, in the past few years has led third world countries to identify, control and regulate their population, which has changed the economic cycle and economic production. Economic production is now mechanized, and mechanization itself recommends a revision of the demographic situation in terms of family planning, how to invest in the economic field, and how much population growth in general, and so on. Of course, some scientists, such as Gennar Mirdal, have advocated population growth, saying that population growth is the first condition for development. According to him: more population, more production, and as a result, more regular and more prosperous economic turnover, this situation can be achieved in a situation where the economic capacity is in harmony with the facilities and resources. In many industrialized societies, where economic production is machine-made, manpower is not well received. As a result, many couples do not follow the stream of rebirth. One of the reasons Westerners are not looking for poor families is the fear of socio-economic security and future employment. That is, the fear that children may not be able to find the job they want in the future. This flow affects their way of thinking and spontaneously controls the population in Western societies.

However, population growth has gone through several stages. According to population growth theory, industrialized nations have gone through various stages of population growth alongside economic development. According to this theory, Westerners have surpassed demographic pride and demographic stability. With economic growth and development, population growth accelerated in a way that was achieved in a period of population explosion. Subsequently, there was a phase of population stabilization that Westerners are now in, that is, the third world population fertility and mortality rate is now in an explosive state, and it may take 60-60 years to reach a stabilization phase. Time is needed.

As a result, the two fields of population and economy are interrelated and closely related to each other, namely, family planning and controlled population growth, leads to economic improvement and development, and its optimal economic indicators leave the correction of demographic variables and family planning.

#### 7. The Relationship between Demography and Psychology

When it comes to birth, which is the basis of demography, reproductive behavior and issues related to family planning are also raised, in which spiritual, psychological and emotional issues are automatically hidden and find meaning. Slowly The relationship between psychology and demography is explained in such a way that in order to create any voluntary change in the status of the population, population psychology, family psychology and individual psychology are needed, i.e., the psychological dimension of the above issues must be worked on. This is why family planning in our society and in the Third World in general seems to be very difficult to some extent, because the value system of the people has not changed yet and the psychological aspects and way of thinking of the people have their traditional state. In developed societies, population control or family planning has become largely universal. Under industrial, economic, and educational conditions, this practice has affected all the behavioral values of individuals, or more precisely, their psychological contexts, and has led to their acceptance as a norm. As a result, it should be added that there is a close relationship between the two fields of psychology and demography. In order to strengthen and expand population plans in the society, the necessary psychological ground must be provided.

Demographers raise issues from a psychological point of view. For example, they say that if we give women jobs and professions and involve them in economic and social activities, their reproductive capacity will decrease and we will have family planning. Many women today have a dual role in different societies, that is, they both reproduce and are economically productive. In such cases, their reproduction actually decreases. Also, those who seek education, their views and tastes change, which ultimately leads to population control itself. Thus, we see that our living, cultural and social environment can be affected by demographic issues as well.

#### 8. The Relationship between Demography and Law

In a society with more demographic information, there is a more guaranteed social order. Also, in a situation where the issue of population becomes more tangible and people, stakeholders and planners give more value to the population and place more emphasis on it, such a society will have more legal order. In a densely populated society, many legal areas are violated, undermined or under-represented. In fact, this kind of legal abolition is due to the large population. In other words, human rights can be related to the situation of the population, that is, the rights of a human being cannot be easily defended in a crowded situation. As a result, as far as public terms are concerned with human rights, the human condition is at stake. If the issue of population is not valued, and population information, population status and a clear picture of the population are not available, lawyers cannot easily perform their duties properly and as a result, the legal order of the population is lost.

#### 9. The Relationship between Demography and Statistics and Mathematics

These are scientifically closely related to demographics. Mathematical techniques and statistics make it possible to follow demographic methods, models and applications. Likewise, many movements and advances without statistics and mathematics have no meaning in many sciences, including demography. Therefore, the use of research methods, sampling, etc., in demography requires statistics. The scientific nature of demography has also been proven solely by the use of statistical and mathematical methods.

#### **10.** Conclusion

The present article concludes that in case of appropriate relationship, demography could be better exploited. In case of integration of various disciplines, better results are expected. Relationship between various disciplines which deal with human behavior in a changing social environment, is a part of expanding knowledge. The present article covers various headings such as demography, economics, geography, psychology,

sociology, etc., to point out the relationship of demography with other disciplines. Relationship within different disciplines facilitates various activities, and through that we can easily reach some conclusions, in what we have started. Any development could be reached through a combination of different disciplines.

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