

liability of research results rather than examining the researcher's motivation.

Some recent experience in studying industrial populations places in doubt the generality of the conclusion (Ch. 6) that as compared with the questionnaire the interview is ". . . the more appropriate technique for revealing information about complex, emotionally laden subjects or for probing beyond public attitudes to the more covert private sentiments." There is some reason to believe that the supervised, but anonymous, questionnaire may be superior to the survey-interview under some circumstances.

In a book of this scope a few lapses are to be expected. For example in a discussion (p. 2) of problems that do not require the research process the following statement is made: "If one wishes to know whether local meat prices have risen within the last week, one need only consult a butcher or a housewife." Anyone who has dealt with cost of living indices or with sampling problems will find this a strange statement for an introductory chapter on methods of social research.

Apart from some excusable minor lapses of this kind, the book as a whole is a sound statement of the best current practices. A very desirable feature is the emphasis on the constant interaction between research steps. There is frequent indication that the actual sequence of a piece of research may involve steps out of "logical" order or a re-doing of earlier steps on the stimulus of later steps. In this connection, chapters which are particularly good are those on "The Research Process," "Research Design," and "Analysis and Interpretation."

This book is likely to become a standard work in its field.

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## A GEOGRAPHIC STUDY OF WORLD POPULATION<sup>1</sup>

**T**HE author of this book is a geographer, but much of it is not specifically geographical except in a very wide sense of the

<sup>1</sup> George, Pierre: INTRODUCTION A L'ÉTUDE GÉOGRAPHIQUE DE LA POPULATION DU MONDE. Institut National d'Études Démographiques. Travaux et documents. Cahier No. 14, Paris, 1951, 284 pages. 600 francs.

term. The author says in his preface that he has tried to write a study of the relations between the numbers in large or small human collectivities and the facts of economic and social structure. To such a study many disciplines must contribute. "A single rule had, it seemed to me, to be observed so as to ensure the geographical character of the study: never to lose sight of the intimate connection (*solidarité*) between all the facts and all the developments, also the connection between past and present or, if one prefers, between time and space." (p. 10)

The book is divided into two main parts dealing with "the geographical distribution of population" and "population changes." The first part opens with an introductory section on the value and comparability of population statistics and a general review of the distribution of population over the world. This is followed by a discussion of the geographical distribution of the population of the world in relation to climate, altitude, energy, and mineral resources. After chapters on "systems of economic and social organization," and on "rural and urban populations," a scheme of classifying populations into types according to the occupational composition is introduced and followed by a discussion of the characteristics and development of the various types. A "critical study of the concepts of overpopulation and optimum population" concludes the first part.

After sections on methodological and statistical matters the second part contains a chapter on types of natural increase, chapters on internal migration and international migration, and a short final chapter, the title of which is perhaps best rendered into American English as "The ethnic composition of populations and resulting problems."

The subjects discussed are treated on a world scale. There is much more concentration on French materials in the sources used than in the subject matter covered. The author in many places presents suggestions for future research rather than final conclusions.

The book seems to be aimed at readers with knowledge of geography rather than demography. The sections dealing with demographic matter are fairly thoroughly documented with statistics, while the chapters on physical geography contain

rather a fairly extensive summary of the author's conclusions. In general he emphasizes that while the features of the physical environment may set certain limits, yet a wide variety of demographic conditions can exist in the same geographical setting. "No factor of the natural environment exercises a determining influence; the laws of population distribution, if there are such, are not physico-geographical." He distinguishes between the direct and indirect effect of physical environment on human societies. The direct effects are—except in certain climates—generally insignificant. The indirect effects which act on man's economic activities are more important. Even the arctic regions are, he argues, uninhabited less because of the difficulties of protecting the human body from the effects of cold than because it is hard to obtain food. However the influence of a certain natural environment on population varies with technological, economic and social conditions. A river may be a barrier at one period, a route of transport at another. In Europe, coal mining regions are places of the heaviest concentration of population, in the United States the mining regions are far from being the most densely settled. Moreover the geographical environment is in part a product of human activity. "Some features of the environment retain their dominance: the presence of the Alps in Europe, for example; but the original vegetation which was the complex result of topography, soil, local and general climatic conditions as well as the respective influence of variations in climate and of the resistance of the existing complexes of vegetation, has been completely transformed by human action. . . . New complexes are the work of man, the complexes of the cultivated plains and their parasites. Animal life has been similarly modified, rivers regulated, the riches of the subsoil realized. But action of this type has not always been continuous. The vicissitudes of history have eliminated human action from areas of varying size for longer or shorter periods. An apparently natural ("para-naturel") landscape has reappeared, often far removed from the original landscape, but seemingly exempt from human influence. . . . It would, therefore, be completely futile to attach any interest to cause-effect relations between phenomena which are believed natural, but are so only in part, and human activity,

continuous or discontinuous, which generates diverse forms of accumulation and proceeds in large part from other causes." (p. 67)

The same line of argument is used in the criticism of population density as a tool of analysis and, elsewhere in the book, in discussion of optimum population and overpopulation. Space, Mr. George insists, is in itself of limited significance for the development of human societies. In view of the variety of socio-economic and technological possibilities conceivable in any country it is difficult to assert that this or that population is "too large." Another concept which he subjects to criticism is the notion of "genre de vie" developed by Vidal de la Blache. He argues that while this notion can usefully be applied to primitive peoples, it is not a suitable tool for the geographic study of more complex societies, since in such societies there are many "styles of life." These are interrelated and are products of the economic and social structure. Changes of economic and social structure "determine all the forms of production, exchange, consumption and, consequently, the physiognomy of society with its most visible manifestations on the geographic level, residence, habitat, type of cities." (p. 77)

In the second part of the book the treatment is largely descriptive rather than theoretical. The distribution of space between subjects is unusual. Natural increase and the influences acting upon it receive little treatment—much less than migration. There is much interesting material on widely varied topics such as the distribution of economic functions between Paris and its suburbs or cultural pluralism in the United States. In the sections dealing with the more usual demographic rather than geographical topics the author seems less at ease and there is sometimes an impression of "scissors and paste." His treatment of statistical matters seems occasionally rather naive.

However the book will, unfortunately perhaps, arouse most interest on account of the author's political opinions. These are mentioned in a preface by Mr. Sauvy, director of the Institut National d'Études Démographiques (in whose series of monographs the book is published). While limiting its own work to empirical researches, the Institute has attempted to encourage the formulation of views on population by authoritative

scholars of diverse schools of thought. "It seemed useful," says Mr. Sauvy, "to give to an author of profound Marxist convictions the opportunity to write about problems of population." Marx himself and a great many of his followers have used strong language about Malthusianism and other "bourgeois doctrines" regarding population, but positive Marxian doctrine on the subject hardly exists. This book does nothing to fill this gap, though it must be said that the author himself makes no claims in this direction. The name of Marx, so far as the reviewer remembers, is not mentioned by him: on the other hand, the references to Malthus (e.g., on pages 162-163) are not disrespectful. His Marxism shows itself rather in adulation for the USSR and the other communist countries.

Mr. George's general emphasis on economic and social structure as the prime determinant of demographic phenomena is, of course, in line with Marxian thought, but it also very widely accepted by "bourgeois" demographers. It would have been interesting if the author had ventured into territory where important disagreements could be expected. The average non-Marxian demographer might very well agree with the treatment of "optimum population" and related topics in this book, so far as it goes. But he might argue that the author has neglected the influence of population growth on socio-economic development. For example one may agree that India is not "overpopulated" in the sense that there are "too many" people in the country, and one may yet consistently with this position argue that rapid population growth in a country which is often on the verge of famine is a very serious hindrance to the economic and social transformation which alone can finally raise the economic level of the Indian masses. Mr. George in his chapter on "types of natural increase" states that the present rapid growth of the population in India is likely to continue because for some time the death rate will probably fall faster than the birth rate. "The process which has begun," he continues, "makes necessary the realization by India of the imperious necessity of industrialization to solve the problems of the balance between resources and needs" (p. 205). The next sentence begins a section on Brazil.

The author's political opinions are in evidence mainly in the

chapters regarding the various economic types and their characteristics. Lack of space prevents a full description of these chapters. The classification into types is based on the distribution of the economically active population by main industrial groups (primary, secondary, tertiary). His first two types are the "agricultural" in which the percentage of persons engaged in primary production is over 60 per cent and a type which is "agricultural with subsidiary industrial activity" (he cites Italy, Japan, Venezuela). Then come the (capitalist) industrial countries, with an enlarged secondary and also a large tertiary (or "non-productive") sector which is swollen by the superfluous activities of bankers and speculators. The USSR is distinguished as a special type because the proportion employed in "non-productive" activities is relatively small while the proportion in secondary industry is as high as in some industrial countries. Mr. George neglects all questions of statistical comparability. However on his own figures for the distribution of the economically active population between the three groups at the 1939 census, the resemblance between the USSR in 1939 (46.4 per cent primary, 35.2 secondary and 18.4 tertiary) and for example Italy in 1936 (49, 28 and 23) is much closer than that between France (35.5, 31.0 and 33.5) and Great Britain (5.7, 47.0 and 47.2) which he classes together. Moreover, the industrial structure of the USSR has not been constant, nor has that of the capitalist countries. If, like Mr. George, one is not too particular about statistical comparability one need not hesitate to make historical comparisons. Data for many countries have been collected in Mr. Colin Clark's *CONDITIONS OF ECONOMIC PROGRESS*. It is not difficult to find stages in the history of several capitalist countries at which their industrial structure, in terms of the three broad categories, belonged clearly to "the type of the Union of Soviet Socialist Republics," as the percentages in the accompanying table show.

Matters get even stranger when it turns out that the communist countries of Eastern Europe and even China belong to the same type as the USSR, though sometimes sub-types are distinguished according to the "stage of development previously reached" (i.e., evidently before they became communist countries). A principle of daring originality has here been in-

Industrial Group	France (1866)	Germany (1882)	Italy (1881)	Ireland (1841)	U.S.S.R. (1939)
TOTAL	100	100.0	100.0	100.0	100.0
Productive	81	80.8	83.2	85.3	81.6
Agricultural	43	41.9	46.3	50.8	46.4
Nonagricultural	38	38.9	36.9	34.5	35.2
Nonproductive	19	19.2	16.8	14.7	18.4

roduced—that of classifying the economic and demographic status of countries not by observable realities but by the professed intentions of their regimes. Mr. George has developed a few applications of his principle—for example in his discussion of the future population of the USSR. In a country where (in contrast with capitalist economies) “the masses have an interest in increasing the distributive power of a system of which they benefit directly” and where more and more people are needed and welcomed, the rate of growth must be high and continue to be high. This argument is irrefutable because, as is stated earlier in the book (p. 18), “the Soviet Union does not publish demographic statistics.” A universal application of Mr. George’s principle would be a pleasing innovation for, according to the plans of their governments, most countries would appear to belong to a prosperous industrial type. However, like many innovators Mr. George has not perceived the full possibilities of his discovery. For example, he classifies Yugoslavia simply as agricultural. He has apparently failed to notice that Marshal Tito plans to industrialize his country.

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