

Europe's Population  
In The Interwar Years  
By Dudley Kirk

ECONOMIC, FINANCIAL AND TRANSIT DEPARTMENT

EUROPE'S POPULATION  
IN THE INTERWAR YEARS

By Dudley Kirk

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## PREFACE

THIS volume by Professor Dudley Kirk on *Europe's Population in the Interwar Years* is the last in the series of four studies undertaken for the League of Nations by the Office of Population Research of Princeton University. This concluding study surveys the over-all human resources of Europe as recorded in the population censuses and vital statistics of the interwar period and analyzes the demographic evolution of the continent in the light of past developments and future prospects. It supplements in important respects the three preceding volumes in the series, namely: *The Future Population of Europe and the Soviet Union: Population Projections 1940-1970*, published in 1944, *Economic Demography of Eastern and Southern Europe*, published in 1945, and *The Population of the Soviet Union: History and Prospects*, published in 1946.

Originally planned as a demographic atlas of Europe, depicting in cartographic form the wealth of basic data collected by the Office of Population Research for its studies of demographic problems, this book has changed complexion in the course of its elaboration. As the study progressed its conception was extended from that of an atlas with descriptive text to that of an analytical discussion of European demographic conditions illustrated by maps and charts.

A glance at the Table of Contents will show the varied nature of the subject-matter treated by the author in his analysis of Europe's changing population. The opening chapters describe the distribution of the population over the physical and political surface of Europe and the major changes occurring in this distribution through differential rates of growth among the several nations and major regions within the continent. The factors and forces at work behind these changes are then analyzed in a comprehensive examination of population dynamics and migratory movements. The close association of trends in fertility, mortality, and migration with social and economic development is traced, and indices of this development are used to measure the material progress of the European population. This discussion views the changing social and economic characteristics of the several European peoples as in a single stream of cultural development. It is followed by an analysis of the problems of ethnic diversity, especially as these are rooted in the measurable linguistic differentiation of the peoples of Europe. An evaluation of Europe's position in the world demographic picture concludes the study.

The thanks of the League are due to the President of Princeton University, Dr. Harold W. Dodds, for arranging for the Office of Population Research to make this final contribution to the League's publications. By the same token our thanks are due to the Director of that Office, Professor Frank W. Notestein, and to the author of this study, Professor Dudley Kirk.

A. ROSENBORG

Head of the League of Nations Mission  
in the United States

Princeton, New Jersey  
July 1946

## AUTHOR'S PREFACE

EUROPE is the creation of its people. A small continent as compared with the giants of Asia, Africa, and the Americas, Europe is in fact classified as a continent solely by grace of its non-geographical importance. As much the smaller part of the Eurasian land mass, it gains the distinction of being a continent because its inhabitants and their descendants overseas have played a leading role in the recent history of the world.

The components of a great civilization are complex. It must rest on a strong natural resource base appropriate to the contemporary stage of technological development. To survive it must embody economic and political power. It must have effective social institutions and sound leadership. It must have a sufficiently strong set of ideals and ideologies to evoke loyalty and sacrifice on its behalf. It rests, among other basic things, on the number and attributes of its population.

The latter are among the more neglected aspects of current thought regarding the future of Europe. The natural and economic resources have been elaborately catalogued both as regards their present state and likely future development. The bookshelves are filled with biographies of individual Europeans, both good and evil. The intricacies of diplomacy and national politics, no matter how ephemeral and transitory in their importance, are elaborately chronicled in hundreds of books annually. Ideologies are the subject of exhaustive dissertations and endless speculation. But the fundamental human resources—the number and physical attributes of the population, and the quantitatively measurable indices of its cultural development and characteristics in the mass—have generally received short shrift in the commentaries of the day.

The present volume is an attempt to increase the knowledge of man about himself in empirical and measurable terms. It takes as a starting point those aspects of human resources that have been measured through mass observation in verifiable and quantitative terms, in the language of inductive science rather than of impressionistic observation. For the first time in the history of Europe the censuses and vital statistics of the interwar period were sufficiently comprehensive to afford the possibility of a rather exact measurement of the human resources of the continent on a comparable basis. The purpose of the present work is to assess these human resources and to indicate the underlying and inter-related processes of development that they display.

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The publication of the present volume concludes the series of demographic studies prepared for the Economic, Financial and Transit Department of the League of Nations by the Office of Population Research of Princeton University. The cooperative relationship has been a cordial one, terminated only by the completion of the work of the League of Nations Mission in the United States and the absorption of its functions in the new services of the United Nations. The author is especially indebted to Mr. Alexander Loveday, formerly Director of the Economic Department of the League, and to his successor in Princeton, Mr. Ansgar Rosenborg, for their conscientious and helpful reading of the manuscript and for their sympathetic forbearance in the face of numerous delays in its preparation.

The writer's colleagues in the Office of Population Research have been a constant source of fruitful assistance and counsel. The author is particularly grateful to the Director of the Office, Professor Frank W. Notestein, for his unflinching encouragement and for his constructive criticism and advice at every stage of the project. Special thanks are also due Dr. Irene B. Taeuber, Dr. Louise K. Kiser, and Professor Wilbert E. Moore of the Office for their

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critical reading of portions of the manuscript. The maps and charts were prepared by Mrs. Daphne L. Notestein.

The author is also much indebted to the statistical and secretarial staff of the Office of Population Research, the members of which gave unstintingly of their time and effort to the laborious tasks of assembling the data and of preparing the manuscript for publication. Without their loyal and capable assistance the present work would have been impossible.

A substantial portion of the basic data analyzed in this report was originally assembled for the use of the Office of Geography and Cartography, United States Department of State. Thanks are due that Office and its Director, Dr. Otto E. Guthe, for cooperation and assistance in various phases of the project, and especially in the provision of the base maps used for drafting purposes.

Finally, the author wishes to express his appreciation and that of the Office of Population Research for the generous financial support rendered by the Carnegie Corporation of New York, the Milbank Memorial Fund, and the Rockefeller Foundation. In its early stages the study was advanced by substantial grants made by the Carnegie Corporation to Princeton University specifically for the furtherance of the projects undertaken by the Office of Population Research for the League. The completion of the work was made possible by the continuing support of the Milbank Memorial Fund and the Rockefeller Foundation. However, none of the foundations, either individually or collectively, is to be regarded as author, owner, publisher, or proprietor of this report or is to be understood as approving by virtue of its grants any statements made or views expressed in it. In all matters of fact or interpretation the author alone is responsible.

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July 1946

# CHAPTER I

## INTRODUCTION

THE most important resource of any nation, or of any continent, is its people. Ultimately they are its only resource. Recognition of this fact has motivated every European country at one time or another, to conduct an inventory of its people through a census of population. Some countries have held censuses at regular, usually decennial, intervals over a long period of time, and have built up very elaborate statistical documentation of the historical developments in the size and character of their populations. Other countries have had their first censuses in comparatively recent times and provide only rudimentary information concerning the details of the composition of the population.

Regardless of their character these censuses have always been prepared for a national and not an international purpose. The scope of the census and its execution were in each case tailored to the national interest and policy. In no case has a census been prepared with the idea of achieving a maximum of international comparability. National censuses can provide the raw materials but hardly the finished product for an assessment of the human resources of Europe as a whole.

Various international agencies, such as the League of Nations, the International Labour Office, the International Institute of Statistics, and the International Institute of Agriculture, have made extensive compilations with the objective of providing international comparability. These agencies have done remarkably well in drawing together materials from widely scattered sources in view of the limited staff and funds at their commands. Only one who has worked in international statistics can appreciate the enormous difficulties that they have overcome in making international compilations of demographic and other social data.

The objective of the present work is to supplement, rather than to supersede, the work already done, differing in emphasis rather than in fundamental purpose. In the first instance it was felt desirable to bring together in one place representative indices of the major subjects normally considered in the national censuses and vital statistics. Previous international compilations have either concentrated on certain ranges of materials, as, for instance, those undertaken by the International Labour Office and the International Institute of Agriculture, or have not attempted in recent years to go much beyond data relating to population growth and vital indices and to the age and sex composition of the population. An objective of the present study is to present in summary and graphic form what might be regarded as a census of Europe, covering much of the materials normally included in national censuses without their very great numerical detail.

Secondly, the work of international agencies in compiling demographic data has generally been confined to the official sources of the countries concerned. Though this restriction is entirely appropriate in view of the character of the agencies concerned, it sometimes results in incomplete coverage owing either to the absence of official figures or to their unreliability. In view of the emphasis on graphic as opposed to tabular presentation in the present study it was sometimes possible to supplement the official data with estimates for those areas in which the census and other materials were inadequate, with the assurance that estimates could be safely made within a reasonable range of accuracy even though the figures could of necessity be only approximate. These estimates were generally derived from official statistics or taken from semiofficial or private sources. In addition the greater flexibility of graphic presentation made convenient the use of statistical indices derived from but not generally given as a part

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of the national censuses. Thus the figures on migration used are only in rare cases official figures, though they were derived from official figures by standard procedures.

Thirdly, the present study has attempted to go beyond the usual compilation of materials on a national basis. Perhaps at no time in recent European history has it been so clear that international boundaries are not immutable. They are lines arbitrarily fixed by man. The absorption of interest in political boundaries has often obscured the fact that there are many other economic and cultural boundaries which cumulatively may be at least of equal importance. Regional differences within countries are often more significant than the differences between countries. To provide a fuller picture of the European population, an inventory of the more important characteristics of the population has been made both for the countries as a whole and for their chief administrative divisions.

Finally, the objective of the present study is no less to present data than to indicate their significance in a logical structure. The gap between the compilation of statistics and their application is one of the most serious weaknesses in the structure of modern knowledge. To the uninitiated, statistical tables are a mystery. To many they have an aura of abstraction and finality that leads to their uncritical use. To many more the difficulties of tracking down relevant statistical data and the further problem of finding one's way through the often complex forms of presentation result in a failure to use available material.

Since almost all of the materials in the present study refer to geographical areas, the map was selected as the most economical and significant method of presentation of the more detailed information. The map has several advantages. It is a medium that is readily understood. It is economical, in that a great deal of material can be presented in a small space. Thus data relating to over 600 administrative districts in Europe may appear on a single map. Finally, and most important, the significance of the data as regards geographical distribution may be grasped almost instantly from a relatively brief inspection of the map, whereas it would require tedious and time-consuming effort to extract the same result from the same statistics given in tabular form.

Despite the emphasis on geographical relationships the maps are not presented with a view to showing geographical details. The maps in this book are, in fact, statistical charts, in which the cartographic form is adopted for convenience of identification and use. They and the numerous other charts are introduced as shorthand methods of displaying materials difficult to assimilate when elaborated in tabular form. To avoid cluttering the text the data on which the graphic materials are based are given in the appendices. For similar reasons, the specific source references are not given where figures cited in the text were obtained directly from national censuses. A comprehensive list of these latter appears at the end of the book.

The difficulties involved in drawing together the data for this volume have made it clear to the author why so ambitious a presentation of European demographic data has not previously been attempted. At first blush it might appear a relatively simple matter to pull together national census material into a European census. But it will be obvious that the assembly of data and their interpretation in an integrated discussion are greatly complicated by the fact that the materials were originally collected at different times for 29 different national purposes in 25 different languages. The scope of the census, the definitions employed, and the methods of analysis were in every case determined by specific requirements of the nation involved. The difficulties to be encountered may be suggested by the fact that even the total population figures are often not strictly comparable, and that frequently there are two or more official population figures for a given area at the time of the census. In the extreme case there are four different official population figures for one country (Finland) and for each of its component parts. None

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of these figures, it may be added, relates to the number of persons physically present in the country on the census dates! In some countries the censuses include only persons physically present in the area at the date of the census; in others the figures relate to persons legally resident, thereby including persons temporarily absent from their home districts and excluding transients. Many countries present both figures. Foreigners are sometimes included, sometimes omitted. Soldiers and the inmates of public institutions are variously included and excluded. When such difficulties of noncomparability must be overcome even in obtaining comparable figures for the simple population totals of countries as a whole, the difficulties of achieving comparability for specialized purposes and for some 600 small areas may well be imagined. The most serious methodological problems are mentioned in the discussions relating to each subject.

It will be noted that the data refer to the interwar areas, both of countries and of administrative districts within countries, and that the detailed maps generally relate to years approximating the center of the interwar period. This was necessitated by the fact that later materials were often impossible to obtain. Much of the material can only be derived from census data; in numerous countries the last census was taken in the early 'thirties. In most of these countries the decadal censuses that normally would have been taken in recent years were suspended owing to the war. However, since it is the purpose of this volume to show the more underlying and enduring aspects of Europe's human resources, aspects that do not change overnight and which have effectively survived war and conflict, the use of relatively old materials, in any event dictated by circumstances, does not make a crucial difference. In some instances later data for particular countries (e.g., Germany) were available. However, the merits of comparability were thought to exceed those of having the latest available but not strictly comparable material. In a number of instances, illustrative maps present the immediate prewar situation for countries as a whole. In addition some attempt has been made to give historical perspective in similar small scale maps for earlier dates.

As has been suggested, the national boundaries of the interwar period were used. In general both national and provincial boundaries are those of the date of the census from which the materials are drawn. Thus boundary changes incident to the war and postwar settlements have been ignored.

Some question naturally arose as to the selection of divisions used within countries. In most cases the data were collected for the largest divisions customarily employed in the census analyses of the country concerned. In some instances, as in Switzerland, the divisions usually given are too small for effective mapping. In such cases regional groupings were used. In other instances, as in Czechoslovakia, the conventional major divisions of the country are undesirably large for analytical purposes. Where it was feasible to do so, smaller divisions were employed. Unfortunately it was impossible to obtain a complete consistency in the areas, owing to differing arrangements in the source materials themselves.

It is recognized that few persons are sufficiently conversant with European geography to enable easy recognition of political divisions within countries on an unlabelled map. At the same time it obviously was not feasible to attempt to introduce names of administrative divisions on maps where data for such divisions are shown. To provide means of identification key maps showing the names of the administrative divisions are included at the end of the volume. Though national boundaries have been entered in each of the text maps, in some of the larger maps readers may have some difficulty in locating them. This difficulty will perhaps serve to emphasize the lack of correspondence between political and cultural boundaries.

In the chapters that follow an attempt is made to cover the major demographic materials relating to Europe in the interwar period without, on the one hand, over-elaborating the

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tremendous volume of data available, nor, on the other, needlessly duplicating previous work. Since this is the fourth of a series dealing with European demographic problems much of what has appeared in the earlier volumes is assumed or given less emphasis than its intrinsic importance might seem to merit.<sup>1</sup>

The discussion opens with some consideration of population distribution in Europe. This subject is followed by a much fuller treatment of population dynamics, first in terms of gross population change, and then in terms of the elements entering into numerical growth. All population change is the balance of births, deaths, and migration. Each of these is considered in turn. Since the trend of European birth and death rates, their determinants, and their implications for future population development have already been treated at some length by the author and his colleagues<sup>2</sup> these aspects of European demography are not given as full attention as migration. Four chapters are devoted to the different phases of European migration and their combined role in the balance of population change.

Quantitative changes in population size and distribution are of crucial importance to the future of Europe. But of equal importance are the composition and characteristics of the population. These are the subjects of Chapters IX and X, the first dealing with significant indices of social and economic development that are common to all of Europe, the second with the divisive forces of ethnic diversity.

The final chapter summarizes the major conclusions of the book in more general form and points to some of the larger problems raised by demographic changes for the future of Europe and the future role of the continent in the world.

<sup>1</sup> Thus the demography of the Soviet Union is not so intensively reviewed as would be desirable were it not for the detailed study by Frank Lorimer in this series on *The Population of the Soviet Union: History and Prospects* (Geneva: League of Nations, 1946). Likewise the extensive study of the interrelationships of demographic trends and low agricultural productivity incorporated in the monograph by Wilbert E. Moore on the *Economic Demography of Eastern and Southern Europe* (Geneva: League of Nations, 1945) has made it unnecessary to consider at length the problems of agrarian overpopulation in that region.

<sup>2</sup> Frank W. Notestein et al., *The Future Population of Europe and the Soviet Union* (Geneva: League of Nations, 1944).

## CHAPTER II

### POPULATION DISTRIBUTION

IN its pursuit of a livelihood the population of the world has spread itself very unevenly over the surface of the globe. Four-fifths of the land area is very sparsely settled. The overwhelming majority of the earth's people live in a few great clusters of population, each separated from the other by the great geographical barriers, the oceans and the almost uninhabited mountains and wastelands that together account for most of the planet's covering. Most of humanity is crowded into a few favored areas whose dense settlement gives them an importance all out of proportion to their relatively small geographical size.

In modern history Europe has contained the most important of these clusters. It is not the largest, either in its area of dense settlement or in its total population. Its densely populated area is no larger than that of India and rather smaller than that of East Asia. Its total population of some 540 million is larger than India's 400 million, but it is perhaps exceeded by the population living in the East Asian agglomeration composed of China and the former Japanese Empire. Nevertheless, the cities and industrial population of Northwestern and Central Europe give it the greatest concentration of population in the world. A fourth cluster, that of Eastern North America, resembles Europe in its degree of urbanization and industrialization, but the total population is scarcely a fourth that of Europe.

#### *The Continental Pattern*

It is obvious that within Europe the population is neither distributed evenly nor haphazardly throughout the continent. In the accompanying map (Figure 1) the distribution of the European population is shown by dots, each dot representing 5,000 persons. If sand is scattered and shaken on a piece of wrinkled paper, the particles will tend to concentrate and distribute themselves in a manner representing a compromise between the initial impetus and the new environment. The sand will seek out and congest in the low areas on the paper; it will avoid the peaks and the steep slopes. Where the concentration is great the lower areas will be filled and some of the sand will be forced into the higher valleys; where the concentration is slight the grains will seek out the low, flat areas.

Similarly, the population has responded to the force of gravity on the European continent. It has avoided the Alps, the Carpathians, the Balkan Mountains, the Caucasian highlands, the Scandinavian backbone, and even the relatively low Scottish hills. It has concentrated on the plains, along the rivers, and in the seaports. The reasons for this are obvious: agriculture, which was the earlier basis of population distribution, flourished in level areas of good soils and not on the barren slopes of mountains. The latter were sought only when war or population pressure drove people from the more favorable areas. Later, as commerce developed, the rivers and the sea, as the chief means of transportation, attracted concentrations at favorable harbors, at the conjunctions of rivers, and at the heads of fluvial navigation. The denuding of the mountain populations in recent times, and their flow into the valleys, has been the subject of extensive research on the part of Italian and other scholars.

However, it is readily apparent that gravity is only one among many forces directing the population distribution. Cold has obviously inhibited spread of population into the northern regions of Scandinavia and Russia. To a less obvious extent arid climatic conditions have resulted in thin settlement of areas in central Spain, in the Balkans (especially in Macedonia and Rumelia), and in the steppe regions of Southern Russia. Excessive dampness, on the



## EUROPE'S POPULATION IN THE INTERWAR YEARS

other hand, has checked population growth in northern Scotland, in some sections of Norway, and in the Pripet Marshes of White Russia. Soil conditions have favored population concentrations in some areas, inhibited them in others. In Germany, for instance, good soil has promoted dense agricultural settlement south of the Elbe, and poor soil has discouraged it north and east

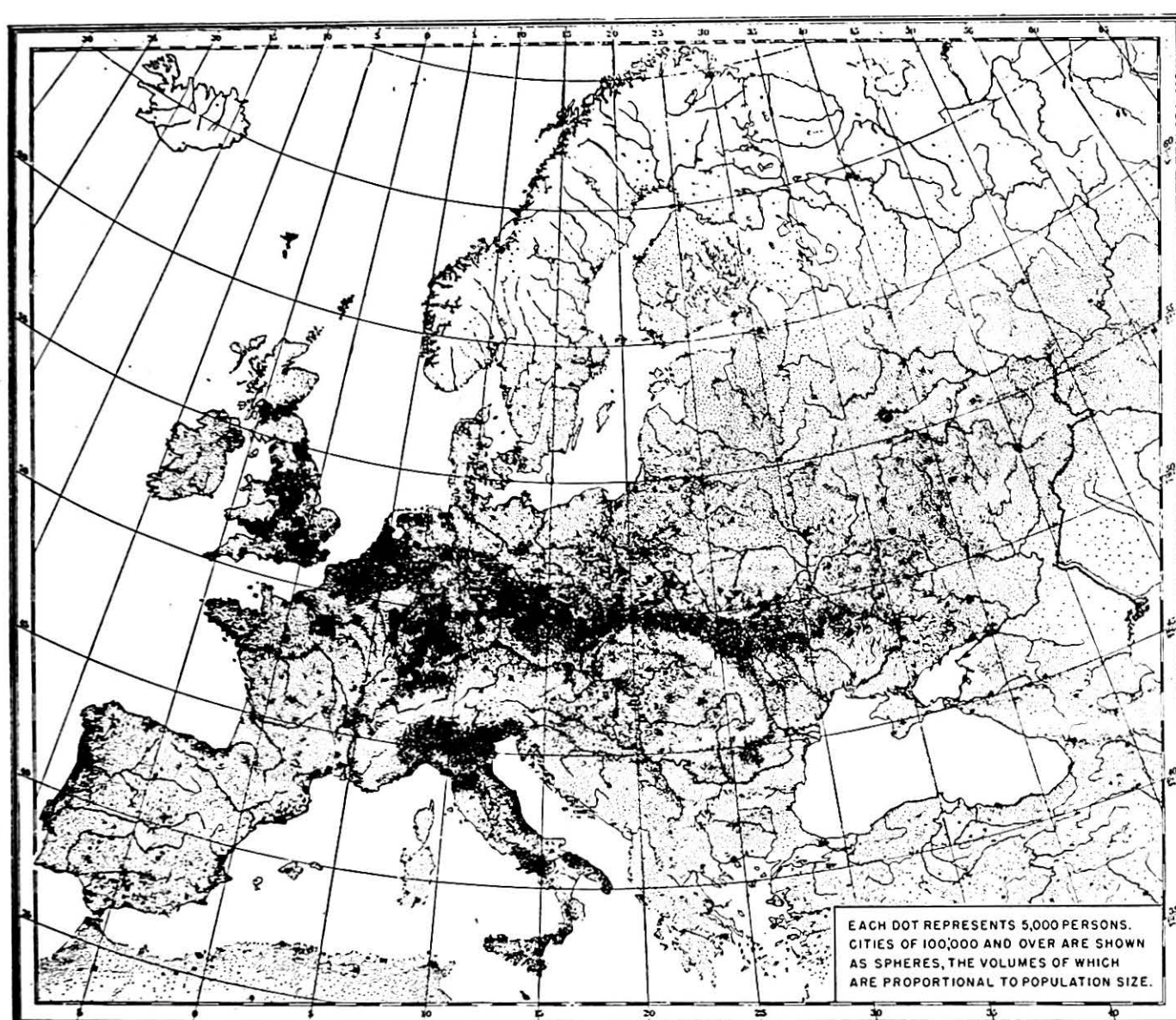


FIGURE 1. Distribution of the European population about 1930. (Adapted from *Sydow-Wagners Methodischer Schulatlas*, courtesy of the American Geographic Society.)

of that river. The most important influence of soil is in the Soviet Union, where dense agricultural settlement follows the black soil belt across the Ukraine and central Russia.

Physiography and climate have in general defined the limits of dense population. However, within the European regions suitable for primitive agriculture the pattern of population distribution is much more complex than might be suggested by the more elementary geographical features. The development of natural resources, the degree of industrialization, the location of markets, the lines of transportation have all created a continental pattern of distribution that is shaped only in its broad outlines by the sharper limits of topography and climate. The greatest clusters of population are those of Northwestern Europe in England, Flanders, the Netherlands, and the lower Rhine Valley. From this center a heavy belt of dense urban and industrial settlement stretches eastward across Germany through Saxony and Bohemia to

## POPULATION DISTRIBUTION

Silesia. Beyond Silesia, and as a continuation, a great arc of close rural settlement reaches across Poland and follows the contours of the black earth regions in a grand sweep across Russia and into Siberia. From this axis of thick settlement the population density fades to sparsely populated regions in northern Scandinavia and northern Russia. The Danube valley, though thickly populated, does not have as heavy concentrations, and the Balkan periphery is thinly settled by comparison with the central axis extending the width of Europe from the North Sea to Siberia.

A second axis of population concentration runs up the Rhine valley through Switzerland to Italy, broken, however, by the line of the Alps. Northern Italy is very heavily populated and the area of dense settlement extends down the peninsula but with some fading in the southern areas. Except for a few concentrations France and Spain and Portugal are rather thinly settled by European standards.

Though there are very great variations in density of population in Europe, in general it is very high. Europe with the European sections of the Soviet Union averages a little less than 50 persons per square kilometer and without Russia about 75. These contrast with an average of about 15 persons per square kilometer in the remainder of the Earth. Europe west of the Soviet Union is about five times as densely populated as the rest of the world. The population density is ten times as great as that in North America, fifteen times as great as that of South America and Africa, and seventy-five times that of Australia. It is no wonder that tens of millions of Europeans have migrated to less crowded regions of the world.

Crude figures of population density only roughly measure the relationship of population to land and resources, especially where the units considered are as large as continents. Nevertheless by any measure of population density other than those of level of living, technical efficiency, and effectiveness in utilization of resources, Europe is one of the most densely populated regions of the world.

The dense clustering of population in Europe exists side-by-side with standards of living far above the world average. Though Europe is relatively favored in natural resources this achievement of combining high population density and high living standards is much more closely connected with the cultural development and technical efficiency of the European people. It will be noted that the most densely populated areas of Europe are also in general those of higher living standards. Natural resources are significant only if there is the skill, the social organization, and the motivation to use them. From a technical point of view Europe had quite as great a reserve of natural resources in Neanderthal times as at the present. Europe's predominance was made possible by the existence of relatively abundant raw materials, but their development is the achievement of European civilization.

The gradual historical development of the European economy created a continental pattern of population distribution. The distribution of population in the interwar period had almost no relation to political boundaries. The greatest concentration of population on the continent was centered in the Low Countries but overflowed into northern France on the one hand, and into the German Rhineland on the other. Up the Rhine valley there was a corridor of dense population that followed the valleys of the Rhine and its tributaries without any attention to national boundaries. The populations of Saxony and of northern Bohemia formed a single cluster bisected by the international boundary between Germany and Czechoslovakia. The population of the Silesian industrial region, which forms a unit in terms of settlement, was divided between Germany, Poland, and Czechoslovakia. In the Danube basin settlement followed the convolutions of the Danube and its tributaries and had little regard for the political

dividing lines that compartmentalized the region. In few countries was there a national pattern of population settlement substantially independent of that of neighbors.

It is perhaps significant in this regard that in North America, where political boundaries are unimportant, the distribution of population has marked resemblances to that of Europe. If one conceives of North America as a mirror-image of Europe, in that directions are reversed, it will be noted that the largest centers of population in North America, as in Europe, are located on the Atlantic Seaboard. In North America this is the Northeastern area of the continent, in Europe the Northwestern area. From this center in North America there is a great industrial area extending westward through the North Central states comparable to that in Europe reaching across Germany to Saxony, Bohemia, and Silesia. The Baltic Sea finds its parallel in the Great Lakes, the settlement of Canada being similar, though less dense, to that of Scandinavia. European Russia is, of course, the Middle West of Europe, with relatively close settlement in the regions nearer the main centers of European population, fading gradually as one proceeds into the steppes. In topography and settlement the latter find their counterpart in the American Great Plains. In its scattered and predominantly rural population Southern Europe, and especially the Balkans, has a parallel in the American South. In Europe, as in America, there is a continental pattern of population distribution that is largely independent of political boundaries.

The continental pattern of European population distribution is indicated by its organization about a central focus in Western Europe. In a general way it is apparent from relative density of population that there is a center of population gravity in the Low Countries and neighboring areas, and that population density tends to decline with increasing distance from this center.

Conventional centers of population inadequately express the importance of this central tendency. They are customarily computed by weighting population in direct ratio to distance. A thousand persons in northern Russia, for example, may exercise many times the influence on the center of population exercised by a thousand persons in a more central location, as for instance, in Bohemia, which includes the geographical center of population so computed. Based on the lever principle, this gives weight in accordance with distance.

However, in so far as geographical distance is a factor in social relations it is obviously a negative rather than a positive influence. Proximity facilitates social intercourse, distance impedes it. Other things being equal, a man is far more influenced by his neighbors than by unknown persons at the other end of the continent. The intensity of human relationships is inversely rather than directly associated with distance.

This being true, a more significant measure of central tendency in population distribution may be determined by weighting the population according to the reciprocal of distance. On the analogy of gravity it is apparent that large cities have more attractive force than small, and that this force declines with distance. Thus transportation and trade between cities vary directly with their size and proximity to each other.

Figure 2 shows contour lines of gravitational pull computed by weighting the populations of European areas inversely to the distances between them. The potentials (on the analogy of an electrostatic field) are determined for each area by summing the results of dividing the populations of all areas by their respective distances from the area in question.<sup>2</sup>

Computed on this basis the center of population in Europe is an area including London and a section of the Low Countries. In this area one is closest to the largest number of people. It

<sup>2</sup> Special approximations were necessary to measure the intra-district potential of each area on itself, which is included in the total. The contours of Figure 2 are based on the population potentials computed for the central points of 93 areas into which Europe was divided for this purpose. The method employed is that of John Q. Stewart as described in *Coasts, Waves and Weather* (Boston: Ginn & Co., 1945) pp. 164, 166.

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is no accident that London is the most important commercial and financial center in Europe. If distance were the only factor in European trade, the area of maximum potential (including London) would be the inevitable distribution center of Europe. Trade barriers, the location of natural resources, and inequalities of per capita consumption distort this oversimplified picture. But the patent advantages of proximity to this gravitational center of

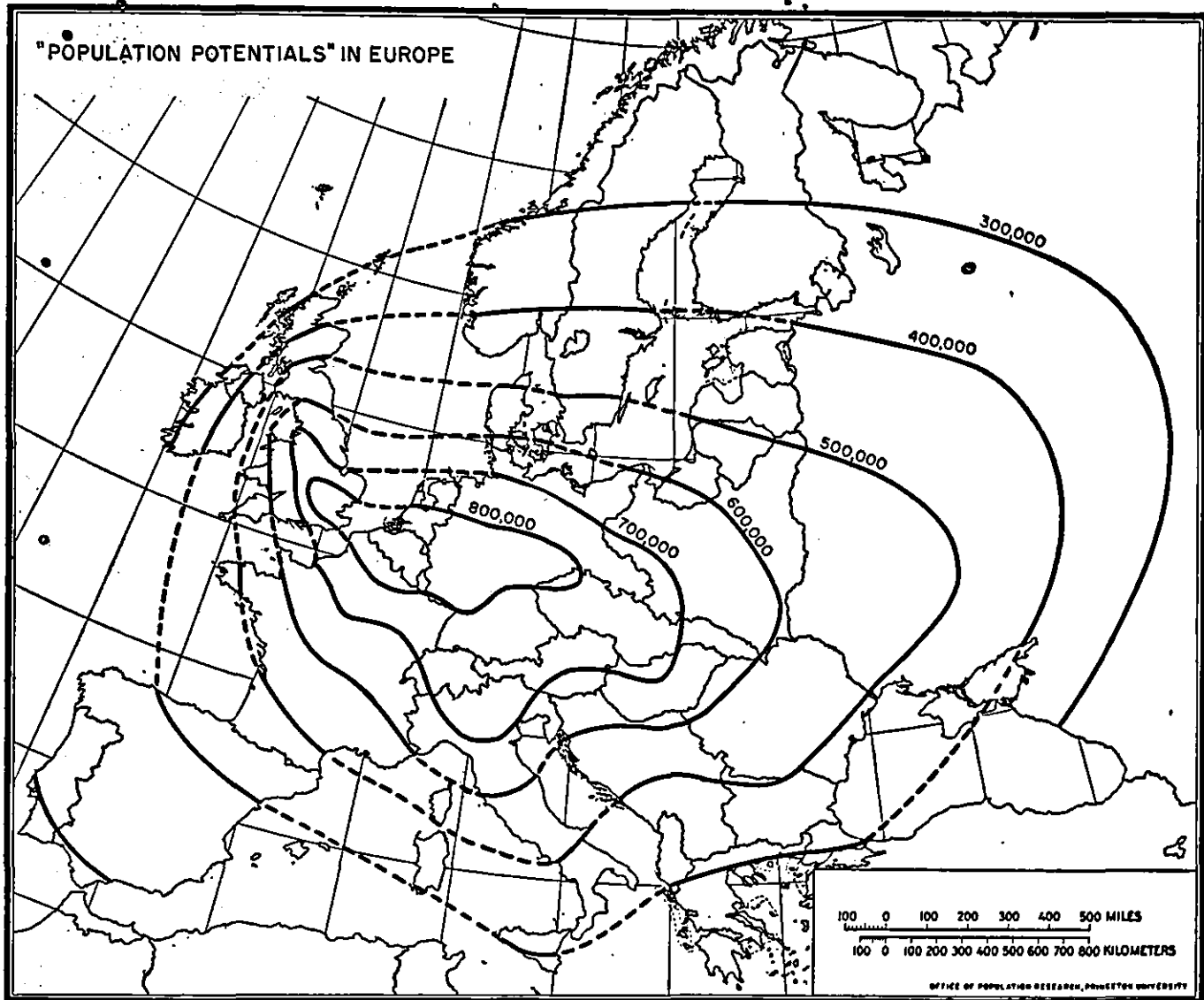


FIGURE 2. Contours of "population potentials" per kilometer in Europe.

population are evidenced in the concentration of large banking and commercial firms in or near it.

Despite subsidiary centers of population concentration outside the center of population gravity, the potentials recede regularly as the distance from the center increases. In the inter-war period other population centers in Europe were too small to produce rival centers of gravity, though the pull of dense populations in Southern Poland and parts of the Soviet Union to the east, and of Italy to the south, modified the shape of the central areas of maximum potential.

### *Regions and Countries*

The distribution of the European population among the several regions and countries is

## EUROPE'S POPULATION IN THE INTERWAR YEARS

TABLE I

## Area, Population, and Population Density of European Countries

Regions and Countries	Interwar Area in Km. <sup>2</sup> (ooo's) <sup>1</sup>	Last Census in Interwar Area.		Estimated 1939 Population in Interwar Areas <sup>2</sup>		Density per Km. <sup>2</sup> in 1939
		Date	Population <sup>2</sup> (ooo's)	Numbers (ooo's)	% of Total (without U.S.S.R.)	
Europe and the U.S.S.R. <sup>4</sup>	26,494.9	—	—	576,725		21.8
Europe (without U.S.S.R.) <sup>4</sup>	5,318.9	—	—	402,925	100.0	75.8
Northwestern & Central Europe	2,971.0	—	—	235,354	58.4	79.2
U.K. & Ireland <sup>5</sup>	310.7	—	—	50,924	12.6	163.9 <sup>6</sup>
England & Wales	151.1	1931	39,952	41,660	10.3	275.7
Scotland	77.2	1931	4,843	5,018	1.2	65.0
Northern Ireland	13.5	1937	1,280	1,300	.3	96.3
Ireland	68.9	1941	2,992	2,946	.7	42.8
West-Central Europe	1,442.7	—	—	164,340	40.8	113.9
Austria	83.9	1934	6,760	6,672	1.6	79.5
Belgium	30.5	1930	8,092	8,396	2.1	275.3
Czechoslovakia	140.5	1930	14,730	15,513	3.8	110.4
France	551.0	1936	41,907	41,950	10.4	76.1
Germany	470.7	1939	69,317	69,640	17.3	147.9
Hungary	93.1	1941	9,319	9,129	2.3	98.0
Netherlands	33.0	1930	7,936	8,834	2.2	267.7
Switzerland	40.0	1941	4,266	4,206	1.0	105.2
Northern Europe	1,217.6	—	—	20,090	5.0	16.5
Denmark & Faeroes	44.4	1940	3,870	3,851	1.0	86.7
Estonia	45.2	1934	1,126	1,122	.3	24.8
Finland	343.4	1930	3,667	3,888	1.0	11.3
Latvia	65.8	1935	1,950	1,951	.5	29.6
Norway	308.6	1930	2,814	2,937	.7	9.5
Sweden	410.2	1940	6,371	6,341	1.6	15.4
Southern & Eastern Europe	2,151.5	—	—	164,886	40.9	76.6
Southern Europe	906.7	—	—	77,123	19.1	85.0
Italy	310.2	1936	42,919	43,864	10.9	141.4
Portugal	91.8	1940	7,722	7,659	1.9	83.4
Spain	504.7	1940	25,878	25,600	6.4	50.7
Eastern Europe	1,244.8	—	—	87,763	21.8	70.5
Albania	27.5	1930	1,003	1,064	.3	38.7
Bulgaria	103.0	1934	6,078	6,305	1.6	61.2
Greece	130.2	1940	7,336	7,201	1.8	55.3
Lithuania	53.0	1923	2,029	2,597	.6	49.0
Poland	388.6	1931	32,107	34,848	8.6	89.7
Rumania	295.0	1930	18,057	20,045	5.0	67.9
Yugoslavia	247.5	1931	13,934	15,703	3.9	63.4
U.S.S.R.	21,176.0	1939	170,467	173,800		8.2

For footnotes see page 11.

## POPULATION DISTRIBUTION

shown in Table 1.<sup>2</sup> The contrasting relationships of the several countries in their area and population are schematically shown in Figure 3. In this chart the approximate geographical positions of the countries are retained, but the mapped areas of each country are scaled to territorial and population size.

The territory of Europe in the interwar period was divided among 27 sovereign nations. There were major differences in the areas of the other countries, but the bulk of the Soviet Union completely overshadowed the remainder of Europe; in fact, the U.S.S.R. was close to four times as large as all the rest of Europe combined. The European territory of the Soviet Union, which has not been clearly distinguished administratively from the Asiatic regions since the Communist Revolution, was only about a third of the total. But even European Russia alone included more than half the territory of the continent. The largest country west of the Soviet Union, France, had little more than a fortieth of the Soviet Union's territory.

The map of population distribution by country presents a different picture, but in many regards a truer representation of Europe than the map of area. The numerical preponderance of the Soviet Union is evident, but it is much less pronounced than in the case of territorial size. Instead of being 35-40 times its nearest competitor it had about two-and-one-half times the number of the next largest population, that of Germany.<sup>3</sup> But since more than three-fourths of the Russian population was concentrated in the European third of the country, the Soviet Union as a strictly European power had a much larger population than its closest rival.

West of the Soviet Union the populations of Europe were more dispersed among different sovereignties than in any other continent with the exception of Africa. In Asia some seventy per cent of the population live in China and India. In South America about forty per cent live in Brazil; in North America an overwhelming majority are residents of the United States. By contrast, Germany in her 1937 territory included only 17.3 per cent of the European population west of the Soviet Union. There were three countries, Great Britain, France, and Italy, with 10-12 per cent of the total; three others, Poland, Spain, and Rumania, with 5-10 per cent; and some twenty others each having less than five per cent (cf. Table 1). There were six sovereign nations each of which possessed less than one per cent of the population of Europe

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<sup>1</sup> Generally excluding inland waters.

<sup>2</sup> For a number of European countries there are two official figures for each census date, one relating to the population legally domiciled in the area (the *de jure* or resident population), which includes persons assumed to be temporarily absent from the country, the other to the population physically present at the time of the census (the *de facto* or present population). Where two or more official figures exist, those most commonly used for analytical purposes and historical comparisons have been entered above.

<sup>3</sup> The 1939 estimates relate to the population at the end of the year in the 1937 boundaries of the countries concerned. They are generally those given in the *Statistical Year-Book of the League of Nations* for 1942/1944 and previous years. In the cases of Austria, Czechoslovakia, Germany, Hungary, Lithuania, and Poland, independent estimates were necessary to take account of boundary changes and natural increase occurring after the last official estimate for the 1937 territories. The figure for the U.S.S.R. is drawn from Frank Lorimer, *The Population of the Soviet Union* (Geneva: League of Nations, 1946), p. 186.

<sup>4</sup> Including the following minor areas, with a combined territory of 196,400 sq. km. and a combined population of 2,521 thousand at the last censuses in the interwar period and an estimated population of 2,685 thousand in 1939: Andorra, the Channel Islands, Danzig, Gibraltar, Iceland, the Isle of Man, Liechtenstein, Luxemburg, Malta, Monaco, San Marino, Spitzbergen, Turkey in Europe, and the Vatican.

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<sup>2</sup> The grouping of countries into regions is based on demographic similarities and not on the basis of assumed political, economic, or ethnic orientations. Hence they do not necessarily conform to usual conceptions of European regions. Cf. the earlier work in this series by the author and his colleagues: Notestein et al., *The Future Population of Europe and the Soviet Union* (Geneva: League of Nations, 1944), pp. 53, 57. This grouping will be generally followed in the succeeding chapters.

<sup>3</sup> The populations given in Table 1 and Figure 3 refer to the interwar territories of all countries concerned, e.g., excluding the Austrian and Sudeten annexations of Germany in 1938 and 1939, as well as the Soviet incorporations of the Baltic countries and western portions of White Russia and the Ukraine in 1939.

# EUROPE'S POPULATION IN THE INTERWAR YEARS

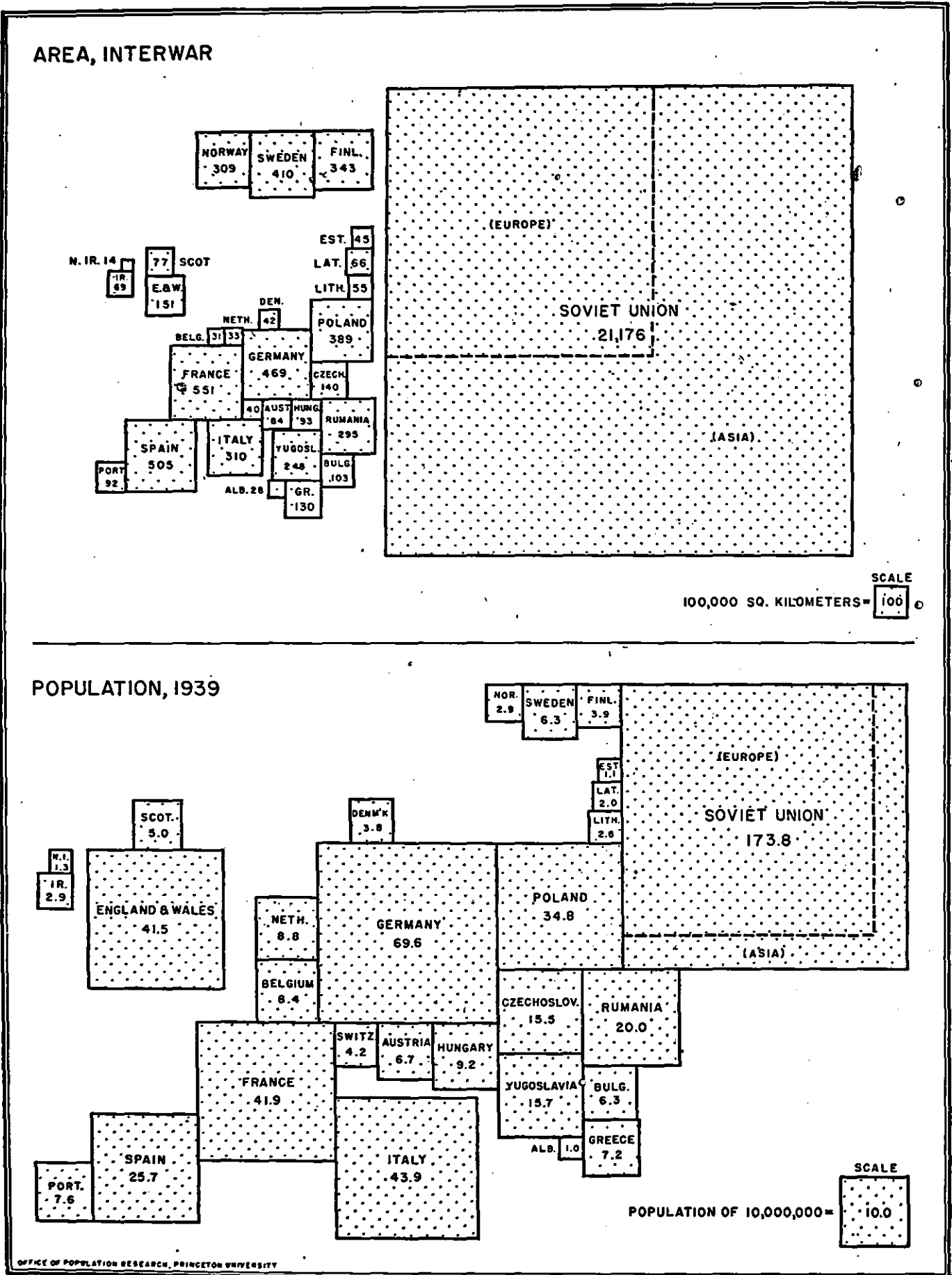


FIGURE 3. Area and population of European countries contrasted. Schematic map of Europe and the Soviet Union with areas of countries proportioned to territorial size, and to population size, the total area within the squares being the same in both panels.

## POPULATION DISTRIBUTION

west of the U.S.S.R. In terms of area and population there obviously was no "standard" or "typical" European country.

The very different relationships exhibited in the two parts of Figure 3 manifest great differences in the densities of population in the several European countries. These are presented in the last column of Table 1. Belgium with 275 persons per square kilometer is the most densely populated country in the world. Almost equally densely populated are England and Wales and the Netherlands. At the other extreme are the Soviet Union, with an average of only 8.2 persons to the square kilometer, and Norway, with 9.5.

As might be expected from an appraisal of Figure 3, the most densely populated countries are those of Western and Central Europe. England and the Low Countries are obviously in a class by themselves; there are neighboring areas of comparable density (e.g., in the German Ruhr and the north of France) but these are diluted in the national totals of these latter countries by thinly settled areas. Population densities of over 100 per square kilometer were to be found in Germany, Switzerland, Czechoslovakia, and Italy. West-Central Europe as a whole averaged above this figure, France being the outstanding exception to high densities in this region.

Northern Europe was notable for its low density of population outside of Denmark. In much of the area the intensity of settlement was comparable to that of the United States, though much higher than that of Canada, which has much more comparable resources. Southern and Eastern Europe approximate the European average. Aside from Italy the countries of this region present a rather uniform pattern of density, that of a closely settled rural population.

Aside from the obvious effects of climate in determining the low population densities of Northern Europe, differences in European population densities are generally related to the degree of urbanization, which is one of the most important bases of cultural differentiation in the modern world.

### *Rural-Urban Distribution*

The nature of rural and urban distribution of population cannot be properly considered without reference to the definitions of "rural" and "urban" employed. These definitions vary radically from country to country as the result of tradition, administrative convenience, and the objectives for which statistical data are compiled. Thus, in a number of countries, notably those of Central Europe, urban areas are assumed to comprise all communes with 2,000 or more inhabitants, smaller communes being classified as rural. Other countries, such as Ireland and the Netherlands, have adopted other arbitrary size limits of demarcation.

The use of arbitrary classification schemes based on the size of commune has obvious advantages in facilitating tabulation and in achieving comparability from one census to another. However, any arbitrary line will never conform exactly to true rural-urban differences. Thus a small community on the outskirts of a large city may fall into the rural category on the basis of size class despite the fact that its inhabitants obtain their livelihood in the neighboring city and have the social and economic characteristics of city-dwellers. Conversely many purely rural communities may be classified as urban simply by virtue of the fact that they include a large area and hence a sizable population. In Southern Europe, for example, there are almost wholly agricultural communities with populations as large as 50,000, owing simply to their large physical extent.

To avoid difficulties inherent in a system based on arbitrary size limits, other countries, including the United Kingdom, France, most of Northern Europe, several Balkan countries, and the Soviet Union, follow equally arbitrary administrative classifications based on the type of gov-



## EUROPE'S POPULATION IN THE INTERWAR YEARS

TABLE 2

## Rural-Urban Distribution of the Population in Europe and the Soviet Union

Regions and Countries	Census <sup>1</sup> • Date	Population (000's)			Per Cent	
		Total	"Rural"	"Urban"	"Rural"	"Urban"
Europe and the U.S.S.R.	—	557,336	299,591	257,745	53.8	46.2
Europe (without U.S.S.R.)	—	386,869	185,034	201,835	47.8	52.2
Northwestern & Central Europe	—	231,602	85,840	145,762	37.1	62.9
U.K. & Ireland	—	49,043	11,998	37,045	24.5	75.5
England & Wales*	1931	39,952	8,000	31,952	20.0	80.0
Scotland*	1931	4,843	1,482	3,361	30.6	69.4
Northern Ireland*	1937	1,280	602	678	47.1	52.9
Ireland†	1936	2,968	1,914	1,054	64.5	35.5
West-Central Europe	—	162,590	61,016	101,574	37.5	62.5
Austria‡	1934	6,756	2,653	4,103	39.3	60.7
Belgium‡	1930	8,092	1,579	6,513	19.5	80.5
Czechoslovakia‡	1930	14,730	7,688	7,042	52.2	47.8
France*	1936	41,907	19,935	21,972	47.6	52.4
Germany‡	1939	69,317	20,879	48,438	30.1*	69.9
Hungary††	1930	8,688	4,997	3,691	57.5	42.5
Netherlands§	1939	8,834	1,807	7,027	20.4	79.5
Switzerland‡	1941	4,266	1,478	2,788	34.6	65.4
Northern Europe	—	19,969	12,826	7,143	64.2	35.8
Denmark*	1940	3,844	2,021	1,823	52.6	47.4
Estonia*	1934	1,126	800	326	71.0	29.0
Finland*	1938	3,864	3,003	861	77.7	22.3
Latvia‡	1935	1,950	1,275	675	65.4	34.6
Norway*	1930	2,814	1,737	1,077	61.7	38.3
Sweden*	1940	6,371	3,990	2,381	62.6	37.4
Southern & Eastern Europe	—	155,267	99,194	56,073	63.9	36.1
Southern Europe	—	75,149	39,257	35,892	52.2	47.8
Italy††*	1936	42,445	20,417	22,028	48.1	51.9
Portugal*	1930	6,826	5,524	1,302	80.9	19.1
Spain††	1940	25,878	13,316	12,562	51.5	48.5
Eastern Europe	—	80,118	59,937	20,181	74.8	25.2
Albania††	1930	1,003	885	118	88.3	11.7
Bulgaria*	1934	6,078	4,775	1,303	78.6	21.4
Greece‡	1928	6,205	3,569	2,636	57.5	42.5
Lithuania‡	1939	2,925	2,250	675	76.9	23.1
Poland**	1931	31,916	23,227	8,689	72.8	27.2
Rumania*	1930	18,057	14,406	3,651	79.8	20.2
Yugoslavia††	1931	13,934	10,825	3,109	77.7	22.3
U.S.S.R.*	1939	170,467	114,557	55,910	67.2	32.8

For footnotes see page 15.

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ernmental machinery provided. In these countries the accuracy of the classification largely depends on the degree to which administrative organization conforms to social and economic reality. Clearly the correspondence will usually be only a rough one. Furthermore the system suffers the additional liability of making intercensal comparison difficult since true changes in the distribution of the population as between its urban and rural segments are confused with administrative changes associated with governmental whim or changed political policies.

The defectiveness of the statistical definitions of "rural" and "urban" have been widely recognized and remedies have been proposed, but no general agreement has yet been reached. No truly homogeneous and strictly comparable data are available for all of Europe. Aside from difficulties of diverse definition some countries do not even attempt an official rural-urban distinction. For these countries it is necessary to select an arbitrary boundary of size class of commune varying with the nature of administrative organization in the country concerned. The official "rural-urban" figures, supplemented by roughly comparable classifications for countries not making the distinction, are presented in Table 2, together with the percentages of the total populations thus included in the "rural" and in the "urban" categories.<sup>4</sup>

In the interwar period the population of Europe west of the Soviet Union was about evenly divided between "urban" and "rural" areas as defined in Table 2. In Europe without the Soviet Union about 52 per cent of the population is listed as "urban," 48 per cent as "rural." The largest urban percentages were to be found in England and the Low Countries, as would be expected from observation of the very high population densities in these countries. Here four-fifths of the populations were town-dwellers. More than three-fifths of the population were also reported as urban in the industrial countries of Germany, Austria, Switzerland, and Scotland. Other countries showing an urban majority were France, Italy, and Northern Ireland. West-Central Europe as a whole was almost two-thirds urban, while the peoples of the British Isles, reflecting their history as the first center of industrialization, were three-fourths town residents.

The remainder of Europe was overwhelmingly rural. Despite substantial industrialization and the existence of important urban centers in the region, thinly-populated Northern Europe was only about 36 per cent urban by its own definitions. Southern Europe was more urbanized,

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### Explanations of rural-urban classifications used:

\* Administrative definition.

† Places of 1,500 or more inhabitants classified as urban, the remainder as rural.

‡ Places of 2,000 or more inhabitants classified as urban, the remainder as rural.

§ Places of 5,000 or more inhabitants classified as urban, the remainder as rural.

†† Places of 10,000 or more inhabitants classified as urban, the remainder as rural.

<sup>1</sup> The last census in the interwar territory with available rural-urban data, except for the Netherlands and Finland, for which later (registration) figures were used, and for Lithuania, in which an official estimate was used in place of the last census, taken in 1923.

<sup>2</sup> Excluding 4,726 persons without fixed residence.

<sup>3</sup> Excluding 474,138 soldiers and workers absent in the colonies and in Ethiopia.

<sup>4</sup> Excluding 191.5 thousand soldiers quartered in barracks.

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<sup>4</sup> In an effort to achieve stricter international comparability in definition of the urban population the per cents of the populations reported as living in places of 10,000 or more inhabitants were computed by countries. This line of demarcation proved less satisfactory as a basis of rural-urban distinction than the definitions employed by the countries themselves and presented in Table 2.

For the use of the United States Department of State the author compiled a complete list of the towns and cities of 10,000 or more inhabitants in the interwar censuses of countries west of the Soviet Union. There were in all 3,270 communes listed, of which 2,091 were in the size class 10,000-25,000, 681 in the group 25,000-50,000, 279 between 50,000 and 100,000, and 219 of over 100,000 inhabitants. These size groups included respectively 20.4, 14.9, 12.4, and 52.3 per cent of the total population in communities of 10,000 and over. Over half of the "urban" population so defined were resident in the larger cities of 100,000 or more inhabitants.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

though perhaps rather less so than is indicated by Table 2.<sup>5</sup> In Eastern Europe the rural population outnumbered the urban three to one. In the Soviet Union, despite the most rapid industrialization and urbanization in world history, more than two-thirds of the Soviet population was still rural at the end of the interwar period.

It is apparent that in the interwar period urban living was predominantly a Western European phenomenon. But great changes were in process in the urbanization of Europe. These and other dynamic aspects of population change will be considered in the next chapter.<sup>6</sup>

<sup>5</sup> As noted above, many chiefly agricultural communes in Southern Europe (and especially Spain) have a population size elsewhere indicative of urban concentrations.

## CHAPTER III

### POPULATION CHANGE

THE expansion of Europe has been the dominating feature of the modern history of the world. Politically, economically, and culturally the civilization of Europe has had a tremendous and growing impact on other continents and on non-European peoples. An important element in this expansion has been the extraordinarily rapid growth of the European population both at home and overseas. Three centuries ago there were only about a hundred million persons of European stock, these being almost wholly confined to the European continent; today there are over seven hundred million and very large areas overseas are now predominantly European in population. In 1650 less than a fifth of the world's inhabitants were European; at the present time more than a third are European or predominantly of European descent.

The number of Europeans living outside of Europe was negligible in 1650; it has been estimated that since that time some 60 million Europeans have sought homes overseas, chiefly in the Americas. Millions more crossed the low barrier of the Urals to settle Siberia and the interior of Asia. Some of these emigrants returned to Europe, but those who remained abroad have since multiplied several times.

The spread of Europeans beyond the borders of their native continent was more than matched by tremendous increases in the population at home. The population of Europe alone is today approximately as large as that of the world three centuries ago. Since 1650 it has multiplied five times; in the past century it has more than doubled. The net increase on the home continent in the last hundred years has been at least 270 million.<sup>1</sup>

Population increases of this magnitude are clearly an extraordinary event in European history. It is obvious that in earlier times the population of Europe must have grown very much more slowly. There are no complete censuses in the pre-modern era to document this fact. But if the population of Europe at the height of the Roman Empire in A.D. 100 may be correctly estimated at some 30-35 million,<sup>2</sup> and if it had experienced the same rate of population growth prevailing in Europe in the course of the past hundred years, there would now be over ten

<sup>1</sup> Figures used for the population of Europe at successive dates are:

Date	Population (in millions)	Average Annual Per Cent Growth
1650	100	
1750	140	.34
1800	187	.58
1850	266	.70
1900	401	.82
1940	540	.74

Aside from the estimate for 1940, these figures were drawn from A. M. Carr-Saunders, *World Population* (Oxford: Clarendon Press, 1936), p. 42, and Walter F. Willcox, "Increase in the Population of the Earth and of the Continents Since 1650" in *International Migrations*, Vol. II, ed. by Walter F. Willcox (New York: National Bureau of Economic Research, 1931). The estimate for 1940 is derived from data given in the *Statistical Year-Book of the League of Nations, 1941/42*. The figure for Europe varies considerably in accordance with differing assumptions regarding the location of the boundary between Europe and Asia in the Soviet Union.

<sup>2</sup> Estimates of the population in ancient times are necessarily based on inadequate sources of information and are therefore subject to considerable margins of error. There appear to have been some 30 million inhabitants of Roman territories in Europe in the early second century A.D., distributed as follows: Italy—7 million, Gaul—8, Spain—9, Danubian lands—3, and Greece and Macedonia—3. Presumably there were several million more living in less civilized conditions outside the Empire. Cf. article on "Bevölkerungswesen" in the *Handwörterbuch der Staatswissenschaft* (Jena: Gustav Fischer), 4th edition, Vol. 2, pp. 666-670. Julius Beloch in his classic work on *Die Bevölkerung der Griechisch-Römischen Welt* (Leipzig: Von Duncker and Humbolt, 1886), p. 507, gives a population of 23 million in the European section of the Roman Empire at the death of Augustus in A.D. 14.

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trillion inhabitants. This would amount to some 5,000 times the present population of the entire world. It would imply an average density of population in all of Europe—on the peaks of the Alps and on the Russian tundra as well as on the fertile plains—equal to over a million persons per square kilometer or one person per square meter. In such conditions there would literally have been "standing room only." Patently the rate of population growth in the past century was much higher than throughout most of European history.

### *Historical Changes in Population Distribution within Europe*

Within Europe the distribution of the population has naturally changed greatly in the long history of the continent. In ancient times the European population was clustered on the Mediterranean shores, first in Greece and then, as colonization and settlement proceeded westward, along the entire Mediterranean littoral. An overwhelming proportion of the total European population probably lived within the boundaries of the Roman Empire during its centuries of dominance. Most of Europe was sparsely settled by modern standards; the population of the whole continent in Roman times was probably about that of Poland in 1939.

The Dark Ages are devoid of usable information on population size and density, but it is apparent that by the Middle Ages the line of mature agricultural settlement had moved northward and westward from the Mediterranean littoral to include France and the Low Countries. Much of Germany and most of Eastern Europe were at an early stage of agricultural settlement, while Northern Europe and the Russian plain were still very thinly peopled. Though the weight of population had shifted to the north and west, the greatest density was still to be found in Italy.

In the succeeding centuries of reawakening the northward drift continued. Despite many reverses arising from famines, epidemics, and wars most of Western Europe had become fully settled from an agricultural point of view by the seventeenth century, and the line of frontier settlement had been pushed far to the East and into the remote North. The greatest concentrations were to be found in France, which in the eighteenth century already had 20 million inhabitants.

More precise documentation of changes in the regional distribution of the European population is possible only for relatively recent historical epochs. Censuses in the modern sense are a creation of the late eighteenth and nineteenth centuries. There are reliable population figures for only a handful of countries for dates prior to 1800. From that time on, however, reasonably accurate data are available for the greater part of Europe.

The distribution of population among the major nations at the beginning and ending of the nineteenth century is illustrated in Figure 4.<sup>3</sup> The populations given for 1800 refer to the boundaries of 1900 (e.g., the figures refer to the populations of Germany and Italy in their 1900 boundaries although these states did not exist in 1800). Owing to adjustments incident to making areas comparable and owing to the poverty of statistical materials the data for 1800 are necessarily subject to wide margins of error.

The most impressive feature of demographic development during the nineteenth century was the enormous growth discernible in every European country. The population increase on the continent totaled well over 200 million, despite heavy emigration overseas. No other century

<sup>3</sup> Populations of European countries and their rates of growth for each decade of the nineteenth century were computed by Axel Gustav Sundbärg and presented in his *Aperçus statistiques internationaux* (Stockholm: P. A. Norstedt & Sons—Royal Printer, 1906).

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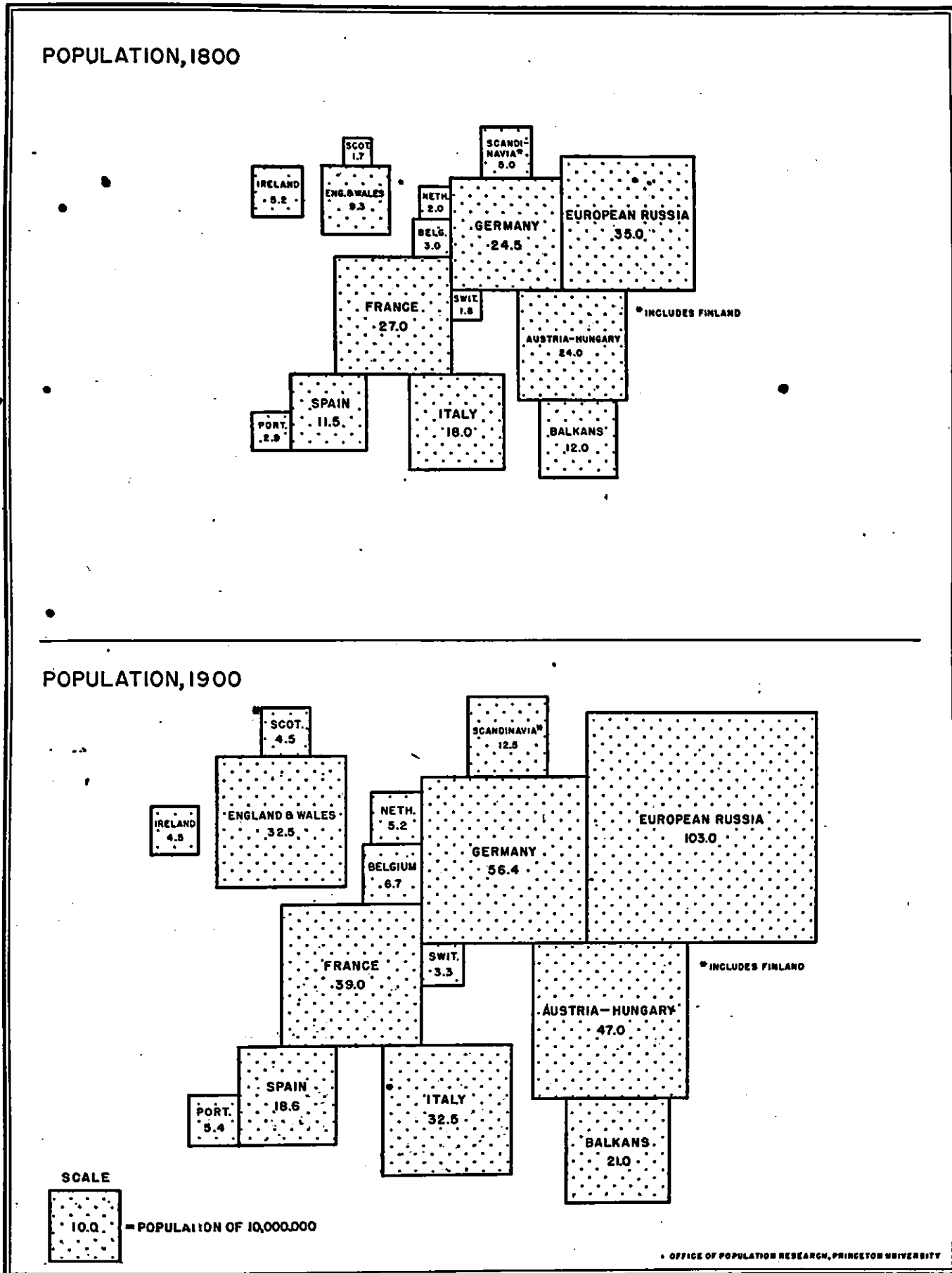


FIGURE 4. Population growth in the nineteenth century. Schematic maps of Europe showing areas of countries proportioned to population size in 1800 and 1900. These are drawn to the same scale as that for population in 1939 given in Figure 3.

in the history of Europe or of any other continent except Asia<sup>4</sup> had witnessed so massive a growth of population.

All regions and countries shared in the rapid expansion. In only one country, Ireland, was there an actual decrease of the population, which arose from the wholesale emigration in the last half of the century. Nevertheless, there were important regional differences in the rate of growth. Gains in the century ranged from 44 per cent in France to the tripling of the population in Great Britain, Russia, Germany, the Low Countries, and Scandinavia all more than doubled their populations and increased more rapidly than the European average. Northern Europe in general expanded very rapidly in the century. The Mediterranean countries, Austria-Hungary, and the Balkans all experienced substantial growth but proportionately less than the continent as a whole. The rate of growth was lowest in France, though the absolute increase of 12 million was considerable. In absolute terms some 75 million or about a third of the total European increase occurred in Russia. Germany increased by about 32 million, Great Britain by about 25, and Austria-Hungary by 23.

The changing position of the great powers in relation to each other since 1800 may be observed in Figure 4. In 1800 no country (in its 1900 boundaries) contained more than a fifth of the total population of the continent, though France had done so at an earlier date. Russia had presumably passed France in population sometime in the eighteenth century, but her pre-eminence in population was far less marked than in 1900 or at the present time. France was not only the most populous nation of Western Europe but further enjoyed the advantages of political unification as over against Germany, and of greater cultural homogeneity as compared with Austria-Hungary.

In the course of the century very marked changes occurred in the distribution of population among the major powers. In the same areas, Russia had grown to over a fourth of the total, France's share had shrunk from a seventh to a tenth. In the course of the century Germany, Austria-Hungary, and the United Kingdom had all passed France in population size. Germany had emerged by a considerable margin the most populous country in the West. Austria-Hungary and Italy grew less rapidly than Europe as a whole, the United Kingdom more rapidly.

#### *Population Growth in the Twentieth Century*

The cumulative effects of changes occurring in the twentieth century may be seen by a comparison of the schematic map for 1900 (Figure 4) and that for 1939 (Figure 3 above).<sup>5</sup> Obviously, despite World War I, population growth has continued on an enormous scale. From the turn of the century to 1940 the European population rose by roughly 140 million, a figure equal to the total for all Europe in the middle of the eighteenth century. But significant divergences from nineteenth century patterns have appeared in European demographic trends, divergences that become apparent when the rates of population growth in Europe since 1900 are examined by decades rather than over the entire period.

The chief motif of demographic development in nineteenth century Europe was an accelerating rate of population growth, reaching its greatest intensity in the latter part of the century.

<sup>4</sup> The growth of population in Asia during the nineteenth century was of comparable magnitude, though at a lower rate of growth owing to its much larger starting population in 1800.

<sup>5</sup> Though owing to changes of boundaries, Figures 3 and 4 are not strictly comparable. In the intervening period Italy and France had gained territory, Germany had lost territory, Austria-Hungary had disappeared, and Eastern Europe had been completely reorganized politically. In the chart for 1939 the Asiatic population of the Soviet Union is included, since there is no longer any significant boundary between European and Asiatic sections of the country. This gain for Russia was counterbalanced by the loss of the Baltic countries, of Poland, and of Bessarabia incident to the peace treaties in effect during the interwar period.

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By contrast the outstanding demographic trend of the twentieth century has been a new tendency towards a falling rate of growth.

The changes in the decennial rates of growth since 1900 are presented in Figures 5-8.<sup>6</sup> In the first of these, showing the per cent change of population from 1900 to 1910, the nineteenth century pattern of growth is still in evidence. All countries except Ireland were growing and, with the further exception of France, growing rapidly. Southern Europe was growing less rapidly than the North and especially the East. Population increases in Scandinavia, in Great Britain, in Italy, in Greece, and in Central Europe were appreciably lower than they would have been in the absence of overseas emigration.

The decade 1910-1920 was naturally much affected by war. In several countries the war more than wiped out natural increase and there was a net population loss in the decade. Among all belligerents the increase was substantially less than in the previous decade. If the statistical records may be trusted, the demographic effects of the war were greater in the East than in the West and especially severe in Yugoslavia, Poland, and the Baltic countries, which were the main battlegrounds of the Eastern Front. The influx of refugees incident to boundary changes were responsible for relatively high rates of growth despite heavy war losses in Germany, Hungary, and Bulgaria. Only the neutrals showed normal rates of increase, and even certain neutrals, notably Spain and Portugal, suffered severely from the influenza pandemic of 1918-1919.<sup>7</sup>

The postwar decade witnessed a resumption of rapid growth in most countries but a growth that was not evenly distributed over the continent. In Northern Europe rates of growth were generally lower than before the war, in Southern and Eastern Europe generally higher. Despite the effects of the Communist Revolution in the early 'twenties the Russian population showed a large gain over the whole decade. But in the continent as a whole the rate of growth fell below that of the decade 1900-1910.

In the great majority of European countries the population growth was lower in the 'thirties than in the 'twenties. The exceptions are those countries, like Ireland, Scotland, and Italy, where the cessation of emigration bolstered population increase or terminated losses. Also, in Germany the reversal of migration trends and the National Socialist population policies checked a decline in rates of growth that otherwise certainly would have occurred. But the general pattern is one of declining rates of increase in all European countries, accelerated in some instances by special factors. In the Soviet Union the travails of famine and collectivization and the policy of providing free abortions to persons wanting them undoubtedly contributed to slower growth than otherwise would have occurred.<sup>8</sup> In Spain the Civil War unquestionably contributed to a smaller increase. Nevertheless the Spanish census of 1940, if accurate, indicates a surprisingly large population growth in the decade.

### *•The Interwar Period*

#### *Countries and Major Regions*

Population changes occurring more specifically in the interwar period are itemized in Table 3, showing the populations by countries in 1920 and 1939, together with the absolute

<sup>6</sup> For all periods the rates of growth were computed as of the interwar territories of the countries concerned. Owing to radical boundary changes following the First World War, and to the fragmentary nature of population data for some of Eastern Europe in 1900 and 1910, rates of growth for the countries of this region in the earlier decades are necessarily estimates subject to some margin of error.

<sup>7</sup> The demographic effects of the First World War are more fully described in Chapter IV below, and in the previous work of the author and his colleagues. Cf. Notestein et al., *The Future Population of Europe and the Soviet Union* (Geneva: League of Nations, 1944), Chapter III.

<sup>8</sup> Cf. Frank Lorimer, *The Population of the Soviet Union: History and Prospects* (Geneva: League of Nations, 1946).



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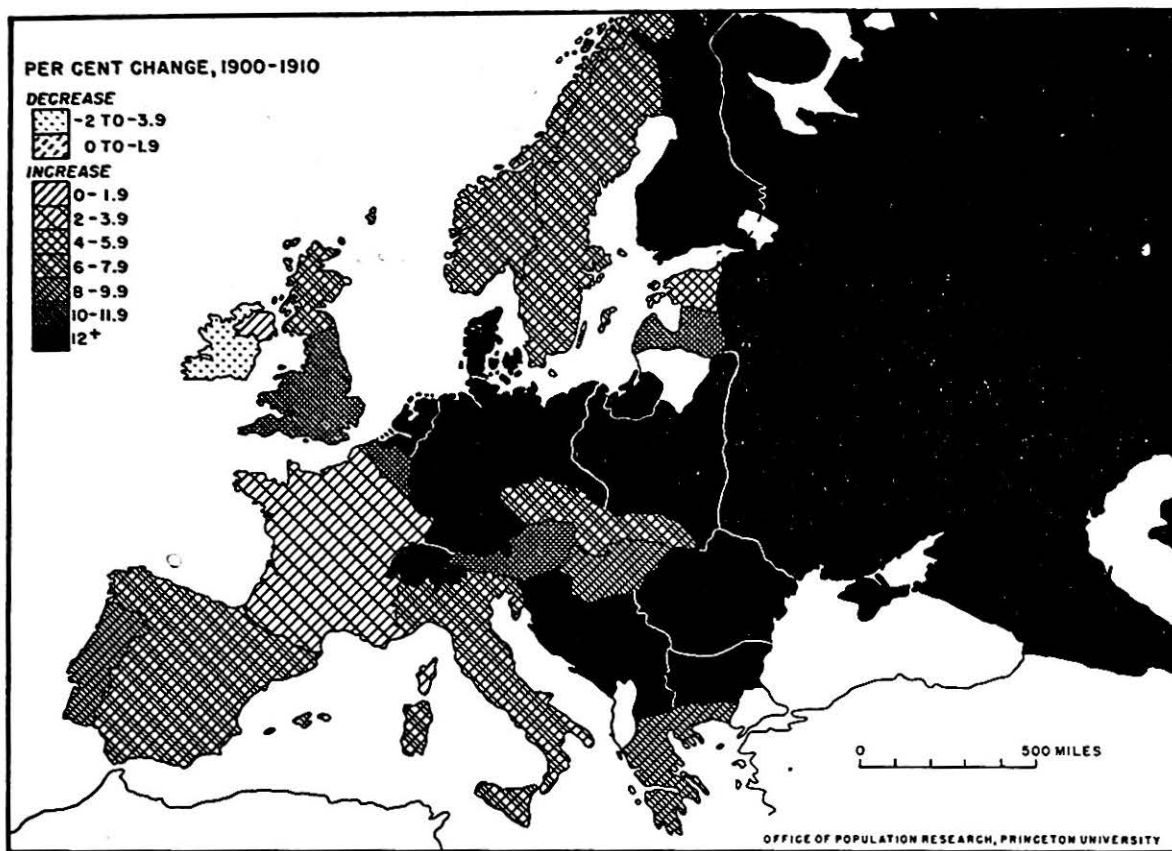


FIGURE 5. Per cent change in population, 1900-1910 (adjusted to interwar boundaries).

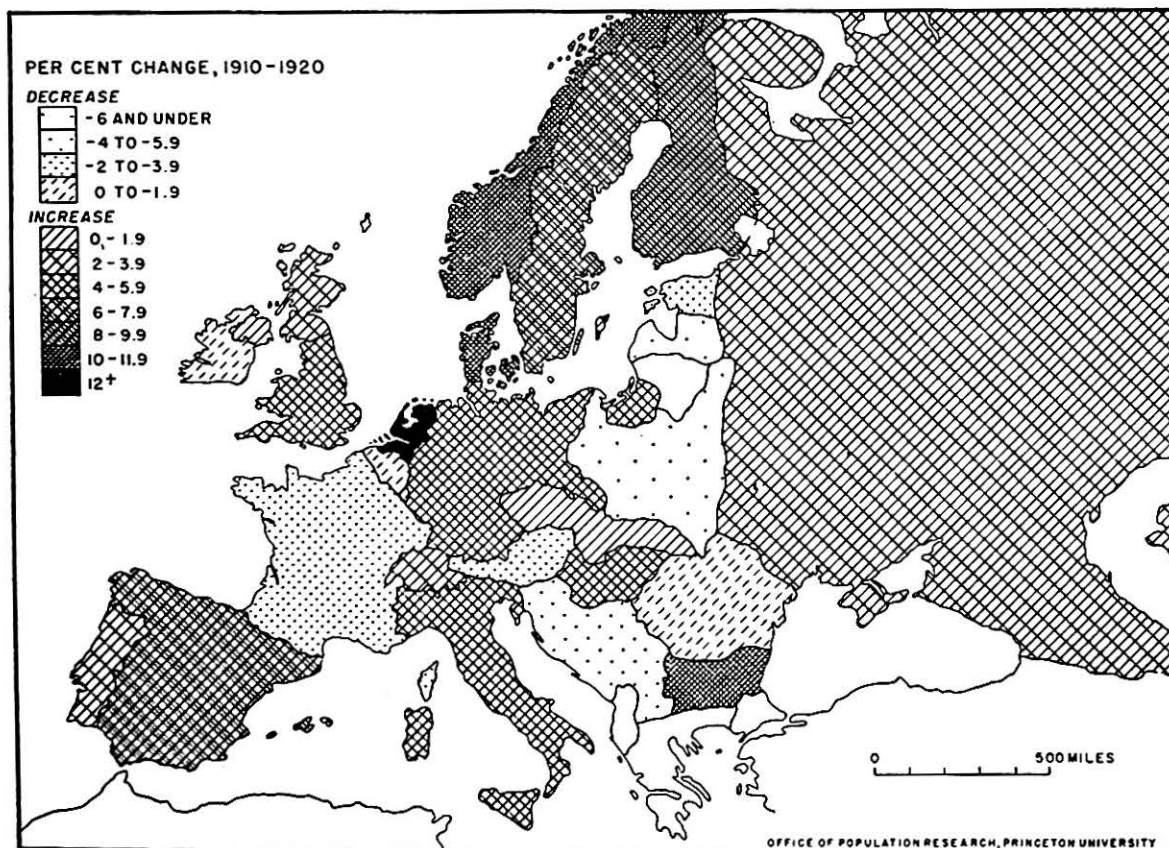


FIGURE 6. Per cent change in population, 1910-1920 (adjusted to interwar boundaries).

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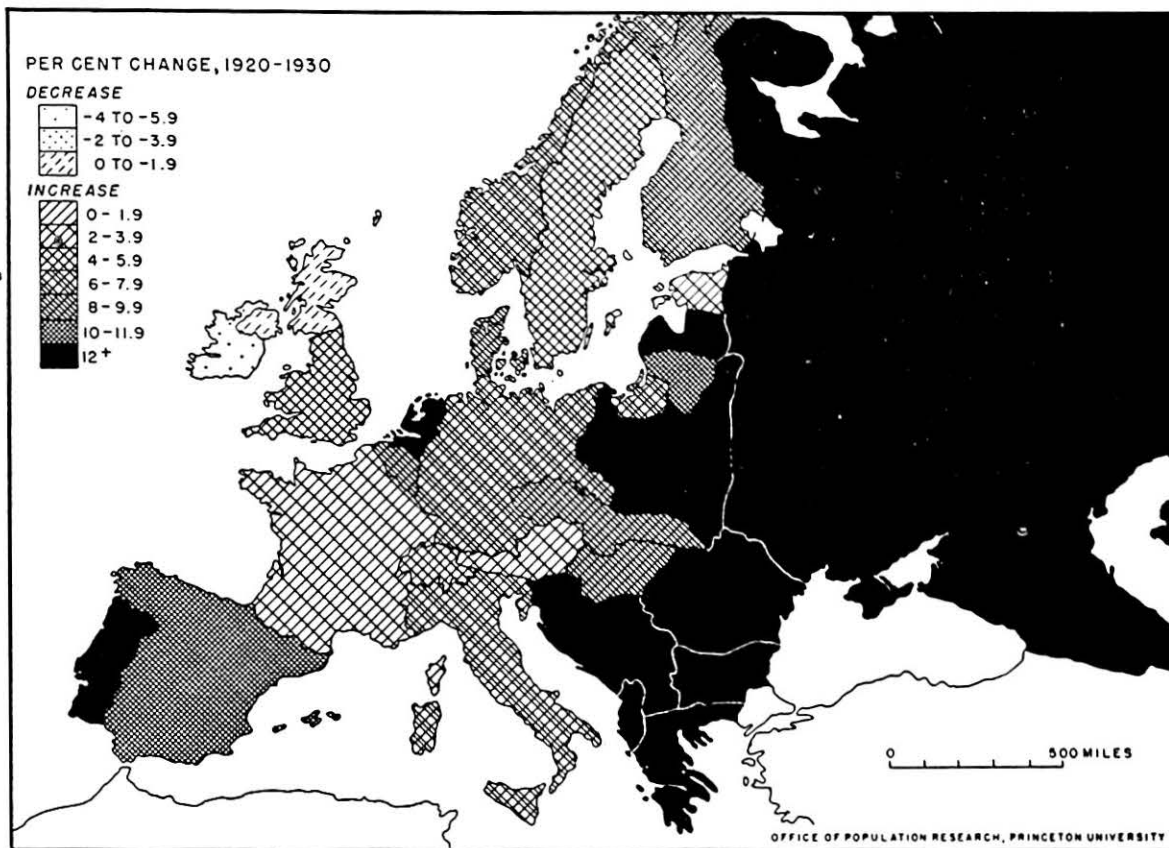


FIGURE 7. Per cent change in population, 1920-1930.

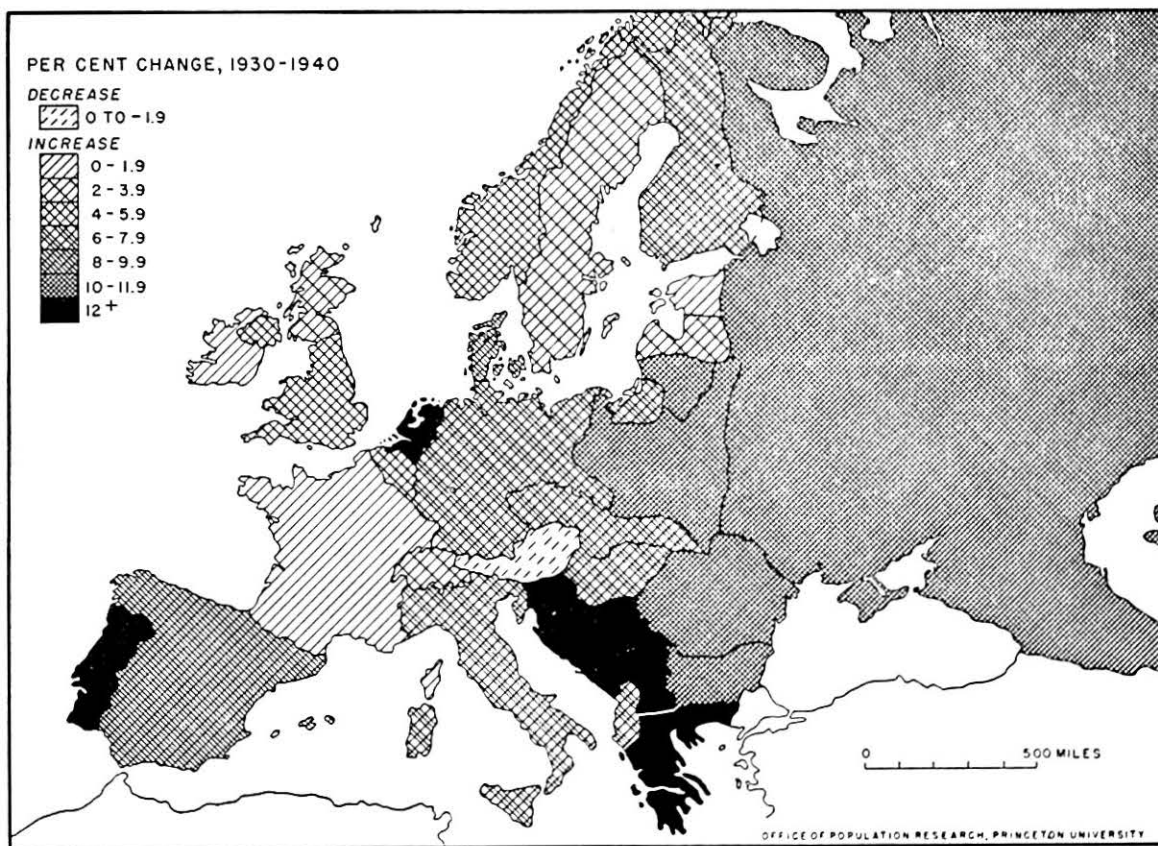


FIGURE 8. Per cent change in population, 1930-1940.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

TABLE 3

 European Population Growth in the Interwar Period<sup>1</sup>

Regions and Countries	Population (000's)		Population Change (1920-39)	
	1920	1939	Amount	Per Cent
Europe and the U.S.S.R.	483,239 <sup>2</sup>	576,725 <sup>2</sup>	93,486	19.3
Europe (without U.S.S.R.)	346,339 <sup>2</sup>	402,925 <sup>2</sup>	56,586	16.3
Northwestern & Central Europe	211,638	235,354	23,716	11.2
U.K. & Ireland	47,127	50,924	3,797	8.0
England & Wales	37,887	41,660	3,773	10.0
Scotland	4,882	5,018	136	2.8
Northern Ireland	1,258	1,300	42	3.3
Ireland	3,100	2,946	-154	-5.0
West-Central Europe	146,602	164,340	17,738	12.1
Austria	6,426	6,672	246	3.8
Belgium	7,466	8,396	930	12.5
Czechoslovakia	13,612	15,513	1,901	14.0
France	39,210	41,950	2,740	7.0
Germany	61,153	69,640	8,487	13.9
Hungary	7,990	9,129	1,139	14.2
Netherlands	6,865	8,834	1,969	28.7
Switzerland	3,880	4,206	326	8.4
Northern Europe	17,909	20,090	2,181	12.2
Denmark (with Faeroes)	3,289	3,851	562	17.1
Estonia	1,105	1,122	17	1.5
Finland	3,365	3,888	523	15.5
Latvia	1,596	1,951	355	22.2
Norway	2,650	2,937	287	10.8
Sweden	5,904	6,341	437	7.4
Southern & Eastern Europe	132,498	164,886	32,388	24.4
Southern Europe	65,265	77,123	11,858	18.2
Italy	37,929	43,864	5,935	15.6
Portugal	6,033	7,659	1,626	27.0
Spain	21,303	25,606	4,297	20.2
Eastern Europe	67,233	87,763	20,530	30.5
Albania	804	1,064	260	32.3
Bulgaria	4,847	6,305	1,458	30.0
Greece	5,017	7,201	2,184	43.5
Lithuania	2,116	2,597	481	22.7
Poland	26,829	34,848	8,019	29.9
Rumania	15,635	20,045	4,410	28.2
Yugoslavia	11,985	15,703	3,718	31.0
U.S.S.R.	136,900	173,800	36,900	27.0

For footnotes see page 25.

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and percentage changes recorded in this interval of peace. The countries are arranged, not in accordance with assumed political or ethnic affiliation, but on the basis of demographic regions determined by similarities in age structure and rates of population growth.<sup>9</sup> Thus Czechoslovakia and Hungary are classified in West-Central Europe because in population structure they more closely resemble the West than the East, and not because of any assumptions regarding the geographical or political orientation of these countries. The Baltic countries of the interwar period, commonly thrown together as one group, are here divided owing to the fact that in demographic behavior Estonia and Latvia resemble Scandinavia, while Lithuania much more closely approximates Poland and Eastern Europe generally. The difficulties of distinguishing European and Asiatic parts of the Soviet Union dictated the inclusion of the entire population of the country in the continental total. Since the population of the Soviet Union is overwhelmingly European, the computations are not seriously biased by this inclusion.

In absolute terms the interwar years were a period of tremendous population growth in Europe. Some 93 million people were added to the population of Europe and the Soviet Union in the 19-year interval, despite the numerous political and economic troubles that plagued the continent in the period. In the area as a whole the increase amounted to 19.3 per cent of the 1920 population.

The gains were quite unequally distributed over the continent. With the single exception of the Netherlands, every country of Northwestern and Central Europe had a smaller percentage of population increase than the average for the continent. With the exception of Italy, every country in Southern and Eastern Europe grew more rapidly than the continental total.

The only country to lose population in the interwar years was Ireland, which has traditionally sent out swarms of emigrants seeking better living conditions in England and in the English-speaking world overseas. Northern Ireland, more industrialized than the South, gained slightly in population, but here and in Scotland emigration carried away most of the natural increase. Despite the slackening of emigration from England and Wales in the interwar period the average annual rate of growth was less than half the lowest rates recorded in intercensal periods of the nineteenth century and lower than that reported for the war decade of 1911-1921.

In West-Central Europe the rates of population growth were generally higher than those in the British Isles. The low rate of growth in the Austrian Republic reflects a continuation of downward trends in population growth evident before the First World War. Even in the prewar days of the Austro-Hungarian monarchy natural increase in Austria proper was relatively small. In interwar France growth was greater than before the First World War, but this increase was almost entirely the product of mass immigration from Eastern and Southern Europe, and the rate of growth was far below that of the continent or even of the West-Central region. Population growth in Germany continued substantial in the interwar period. Between the wars the natural growth of the German population was more than sufficient to balance the losses of population experienced as the result of territorial cessions made after World War I. Nevertheless, the annual rate of growth was much less than before and the National Socialist population policies were not successful in doing more than staving off further declines in the rate of increase. The growth rates recorded in Czechoslovakia and Hungary were similar to

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<sup>1</sup> All data refer to the 1937 boundaries of the countries concerned. Figures for 1920 relate, where possible, to official census totals approximating (i.e., within six months) of the end of that year. In other cases it was necessary to use official estimates or estimates derived from official sources. The figures for 1939 are estimates as of the end of that year (cf. Note 3 to Table 1).

<sup>2</sup> Totals include minor areas, with a combined population of 2,203 thousand in 1920 and 2,685 thousand in 1939 (cf. Note 4 to Table 1).

<sup>9</sup> Cf. pp. 50-54 below.

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those of Germany. In the West-Central region only the Netherlands continued to display the rapid expansion typical of most Western European countries in the nineteenth century.

Northern Europe grew at the same modest rate as the West-Central region. Sweden, like France, has had a history of relatively slow population growth; the remainder of Scandinavia has experienced more typical rates of increase. These facts are reflected in the rates of growth in the interwar period. Furthermore, Estonia and Latvia have been much under the influence of Scandinavian and Baltic culture and reflect similar demographic trends. Especially noteworthy is the exceptionally low rate of population growth in Estonia.

During the interwar period Southern Europe, defined as comprising Italy and the Iberian Peninsula, was growing more rapidly than Northwestern Europe, less rapidly than the East. In the nineteenth century Southern Europe was an area of relatively small population increase. But in contrast with the experience of Northwestern Europe, rates of increase have fallen rather little in the Mediterranean countries.

Despite disturbing elements of political chaos and economic disorganization, the countries of Eastern Europe experienced rates of population growth in the interwar years comparable to those of Western Europe in the last century. At the end of the interwar period these rates were declining, but still high. In the Soviet Union the population grew some 37 million, or more than a fourth, in the interwar period.

The regional differences in rates of population growth inevitably produced changes in the regional distribution of population. Of the total increase of 93.5 million, 23.7 occurred in Northwestern Europe, 11.9 million in Southern Europe, 20.5 million in Eastern Europe, and 36.9 million in the Soviet Union.<sup>10</sup> Northwestern and Central Europe, with 44 per cent of the population in 1920, accounted for only about one-fourth of the total increase. Eastern Europe and the Soviet Union, with 42 per cent of the 1920 population, accounted for more than three-fifths.

The shifts in regional distribution of population resulting from these differences were not spectacular, but they were of cumulative importance. The share of Northwestern and Central Europe in the total declined from 43.8 per cent in 1920 to 40.8 per cent in 1939. Since the rate of growth in Southern Europe was close to that for the whole continent its proportion did not change significantly, but the Eastern European countries (including the Soviet Union) increased their proportion from 42.2 per cent in 1920 to 45.4 per cent in 1939.

These regional shifts in population are also reflected in the changes occurring in the distribution of population among the major political units of the continent. The proportions of the total population of Europe and Russia in these major political units in 1900, 1920, and 1939 are shown in Table 4.

Before the First World War the old Russian Empire included almost a third of the total population in Europe and Russian Asia. Territorial losses and the population losses attendant on war and revolution pared this proportion to about 28 per cent in 1920. By 1939 the Soviet Union had pulled up to 30 per cent of the total, and if the territorial changes of 1939 and 1940 are included, to 34 per cent.

Germany, after Russia the most populous country of modern Europe, was growing rapidly before 1914. Despite war losses and the loss of some seven million people in ceded territory, Germany had a larger population in 1920 than in 1900. The decline in the proportion of the continent's population living in Germany was actually greater in the interwar period than in the preceding twenty years, which included the losses of the First World War. The annexation of Austria and the Sudetenland, however, fully compensated for all of the losses in relative

<sup>10</sup> There was a gain of .5 million in minor areas not included in these regional totals.

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position since 1900. With these areas Germany in 1939 had a population of about 80 million, or 13.8 per cent of the total.

Because its losses in the First World War were relatively light the United Kingdom and Ireland had a larger share of Europe's population in 1920 than in 1900, but this share was reduced in the interwar period owing to the operation of differential rates of population growth. France gained territory as a result of the First World War, but the population of the acquired territory was insufficient to compensate for her heavy war losses. Slow population growth since 1900 reduced the French share of the European total from 9.1 per cent to 7.3 per cent in 1939, despite territorial gains and mass immigration.

TABLE 4  
Political Distribution of Population in Europe, 1900, 1920, and 1939

Country <sup>1</sup>	1900		1920		1939	
	Population (ooo's)	% of Total	Population (ooo's)	% of Total	Population (ooo's)	% of Total
Soviet Union	138,987	32.3	136,900	28.3	173,800 <sup>2</sup>	30.1
Germany	56,367	13.1	61,153	12.7	69,640 <sup>3</sup>	12.1
Austria-Hungary	46,995	10.9	—	—	—	—
United Kingdom and Ireland	41,471	9.6	47,127	9.8	50,924	8.8
France	38,962	9.1	39,210	8.1	41,950	7.3
Italy	32,475	7.6	37,929	7.8	43,864	7.6
Great Powers	355,257	82.6	322,319	66.7	380,178	65.9
Small Western Countries <sup>4</sup>	25,106	5.8	30,054	6.2	34,565	6.0
Spain—Portugal	24,017	5.6	27,336	5.7	33,259	5.8
Balkans <sup>5</sup>	24,752	5.8	39,329	8.1	51,698	9.0
Succession States <sup>6</sup>	—	—	63,039	13.0	75,720	13.1
Other States	73,875	17.2	159,758	33.1	195,242	33.9
Minor Areas <sup>7</sup>	711	.2	1,162	.2	1,305	.2
Total Europe and U.S.S.R.	429,843	100.0	483,239	100.0	576,725	100.0

<sup>1</sup> Territory of date.

<sup>2</sup> Excluding territories annexed in 1939 and in 1940. If these are included, the 1939 population figure is about 196 million or 34.0 per cent of the total.

<sup>3</sup> Excluding territories annexed in 1938 and 1939. The 1939 population in the German territory at the outbreak of war (i.e., including Austria, the Sudetenland, and Memel, but not later acquisitions) may be estimated at 79,855 thousand or 13.8 per cent of the total.

<sup>4</sup> Belgium, Denmark, the Netherlands, Norway, Sweden, and Switzerland.

<sup>5</sup> Albania, Bulgaria, Greece, Rumania, Turkey in Europe, and Yugoslavia.

<sup>6</sup> Austria, Czechoslovakia, Estonia, Finland, Hungary, Latvia, Lithuania, and Poland.

<sup>7</sup> Andorra, the Channel Islands, Danzig (in 1920 and 1939), Gibraltar, Iceland, the Isle of Man, Liechtenstein, Luxemburg, Malta, Monaco, San Marino, Spitzbergen, and the Vatican (in 1939).

The proportion of the total population of Europe and the Soviet Union in the territory of the great powers was declining in the interwar period. In 1900, 83 per cent of the total inhabitants lived in the six largest countries. Owing to the dissolution of the Austro-Hungarian Empire, the fraction remaining in the territory of the great powers was reduced to 67 per cent by 1920. During the interwar years this proportion was further reduced slightly to 66 per cent as the result of declining proportions in the four Western powers, declines only partially compensated by gains in the percentage living in the Soviet Union.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

In recent decades the small Western states together have had only about six per cent of the European population and this proportion has remained relatively constant. On the other hand the small states of Eastern Europe, which had the same proportion of Europe's inhabitants as the small Western democracies in 1900, had risen to 22 per cent of the total in 1938. With the exception of Bulgaria, the Balkan states existing before World War I greatly increased their populations through annexation and in the interwar period all experienced very rapid natural growth. The Succession States carved from the territories of the Central Powers and Russia also grew more rapidly than Europe as a whole in the interwar period. Up to 1938 and the beginnings of German and Russian expansion at their expense, the small states of Europe had been gaining relative to the great powers.

The nineteenth century witnessed an increasing concentration of Europe's people in the territories of the great powers. The First World War and demographic trends of the interwar period brought about a new tendency to dispersion among smaller countries, a tendency finally checked in the immediate prewar years by the territorial annexations of Germany and the Soviet Union.

### *Differentials of Population Growth within Countries: I. Regional*

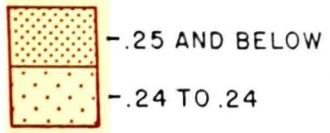
Though among countries only Ireland displayed a net loss of population in the interwar period, there were very large territories that had stationary or declining populations. In more than half of the departments of France and in much of England and Scotland there was a negligible population increase or actual decline. In Ireland, in Scandinavia, in Spain, and in the Soviet Union, there were large areas that were losing people. The gains registered for countries as a whole were often concentrated in relatively small geographic areas within these countries.

The rates of population change between the wars are shown for the minor areas within European countries in Figure 9. The data on which these are based and the somewhat varying periods used for the several countries are given in Appendix II. With the very important exception of the Soviet Union it generally presents the same European pattern suggested by the maps of Figures 5-8, but with considerable variations in each country. In the British Isles, in France, and in Sweden low natural growth and the desertion of rural regions led to a stationary or declining population in large sections of the respective countries. In England these movements have been supplemented by the emigration from the depressed areas of Wales and the North to London and to the Midlands. Population growth in these countries was largest in the major metropolitan regions (e.g., London, Paris, Marseille, Stockholm, etc.).<sup>11</sup> In these and in almost all European countries the major cities were attracting population from the rural areas and were therefore growing more rapidly.<sup>11</sup> Cities, and regions dominated by cities, were the centers of rapid population growth in most countries. This was true not only of industrialized countries but also of those in the early stages of industrialization. Thus in Spain growth was especially rapid in Madrid and Barcelona, the political and economic capitals respectively of the country. The Lisbon district was the most rapidly growing one in Portugal. In Italy the department of Lazio, dominated by Rome, had much the greatest increase. In Greece there was rapid growth in the central region (i.e., Athens), and in Bulgaria the fastest growing province contains Sofia, the capital and chief city. The economic development of Bucharest and the Ploesti oil fields is reflected in the rapid growth of Muntenia, the central province of Rumania.

<sup>11</sup> An outstanding exception was the city of Vienna, which grew less rapidly than its rural hinterland owing to the loss of its earlier function as the capital of the old Austro-Hungarian Empire.

AVERAGE ANNUAL RATES OF POPULATION CHANGE,  
INTERWAR PERIODS

DECREASE OR BALANCE



INCREASE

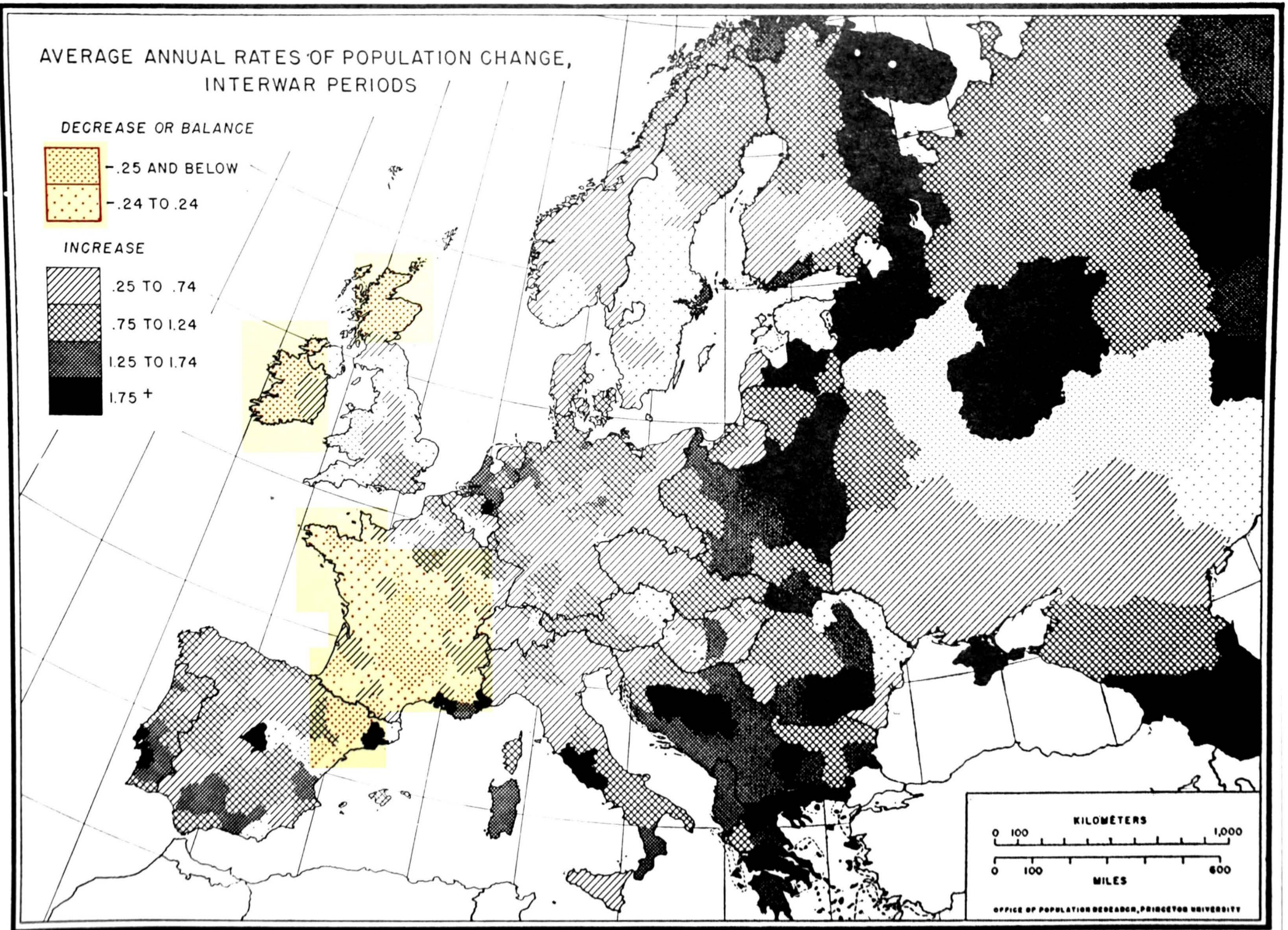
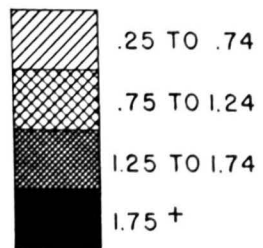


FIGURE 9. Interwar rates of population change in Europe, by minor divisions.



## POPULATION CHANGE

There were two other types of areas that experienced rapid population growth: (1) areas of high natural increase and (2) those receiving great accretions of population from refugee movements following the First World War. In Eastern Europe generally, and in the Iberian and Italian peninsulas of Southern Europe, the natural growth of the population was high. Where rural-urban migration was insufficient to drain off the excess of births over deaths, as in the Balkan mountains, in the Carpathian highlands, and in much of Poland and Rumania, the rates of population growth were impressive. In Macedonia population growth was bolstered by the large inflow of refugees from Turkey, in eastern Poland and central Latvia by refugee movements from Russia.

Regional differences of population growth in the Soviet Union were much sharper than elsewhere in Europe. Though the country as a whole grew rapidly in the interwar period, certain regions gained spectacularly while others suffered heavy losses. The impact of famine and collectivization was most severe in the black earth belt of Russia and in the Ukraine. The rural districts of these regions suffered heavy population deficits, both as the result of hardship and as the result of migration to the major cities and industrial regions. The force of this rural-urban migration is reflected in the rapid growth of the Moscow and Leningrad industrial regions and in the universal growth of cities. The development of new territories likewise resulted in large population increase. Thus the exploitation of the mineral resources of the Urals and the forest regions north of Leningrad resulted in spectacular population growth in these regions. In the Caucasus, in some of the more remote Asiatic territories, and, for that matter, in the country as a whole, rapid population growth was a function of a very large excess of births over deaths despite all the difficulties attending political and economic revolution.

### *Differentials of Population Growth within Countries: 2. Rural-urban*

Owing to the scale of the map, Figure 9 does not adequately indicate the full force of one of the most important changes in population shaping European life—the drift from farm to city. This drift is reflected in the growth of districts dominated by the largest cities and in the lower rates of growth in areas from which rural-urban migration is chiefly drawn. But because most districts contain both rural and urban elements the rural-urban differentials in population growth often cancel each other in the cartographic presentation.

The relative rates of growth of urban and rural populations in the several countries of Europe are shown in Table 5. In every European country the urban population was growing faster than the rural population during the 'twenties; in those for which records are available, the same is true of the 'thirties. Definitions of what constitute rural and urban populations differ widely from country to country, but there is clear evidence of a universal drift from rural to urban life in the interwar period.

The differential rates of growth shown in Table 5 arise both from demographic factors and from administrative changes through which areas formerly classified as rural are established as towns or incorporated in adjacent urban centers. It would be desirable, of course, to segregate these two influences, but the very large number of small administrative changes normally occurring between two census dates make this almost impossible to accomplish for many countries.<sup>12</sup>

Urbanization as measured by these figures is therefore a twofold process: on the one hand, the urban way of life is extended by the movement of people to the towns and cities; on the other hand, the growing towns are constantly overflowing into the neighboring countryside,

<sup>12</sup> The record of those countries in which segregation of administrative and true population changes is possible supports the general belief that both have favored the urban populations.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

TABLE 5

 Average Annual Changes in Urban and Rural Populations in Interwar Years:  
 Earlier Intercensal Periods

Regions and Countries	Intercensal Periods	Average Annual Change					
		Numbers (ooo's)			Per Cent		
		Total	Rural	Urban	Total	Rural	Urban
Northwestern and Central Europe	—	1,347	-71	1,418	.6	-.1	1.1
U.K. & Ireland	—	208	-5	213	.4	-.04	.6
England and Wales*	1921-1931	210.1	15.2	195.0	.5	.2	.6
Scotland*	1921-1931	-4.0	-9.1	5.1	-.1	-.6	.2
Northern Ireland*	1926-1937	2.1	-1.4	3.5	.2	-.2	.5
Ireland†	1926-1936	-3	-9.9	9.6	-.01	-.5	1.0
West-Central Europe	—	1,006	-104	1,110	.7	-.2	1.2
Austria‡	1923-1934	20.5	-1.4	21.9	.3	-.04	.7
Belgium‡	1920-1930	62.6	-7.0	69.6	.8	-.4	1.1
Czechoslovakia‡	1921-1930	114.0	24.3	89.8	.8	.3	1.4
France*	1921-1931	262.5	-59.1	321.6	.6	-.3	1.6
Germany‡	1925-1933	351.0	-92.5	443.5	.6	-.4	1.1
Hungary††	1920-1930	69.8	22.2	47.6	.8	.5	1.4
Netherlands§	1920-1930	107.0	12.9	94.2	1.4	.8	1.6
Switzerland‡	1920-1930	18.6	-3.5	22.1	.5	-.2	.9
Northern Europe	—	133	38	95	.7	.3	1.6
Denmark*	1921-1930	29.0	13.8	15.2	.9	.7	1.0
Estonia*	1922-1934	1.9	-1.1	3.0	.2	-.1	1.0
Finland*	1920-1930	30.2	17.3	12.9	.9	.6	2.1
Latvia‡	1920-1930	31.4	2.1	29.3	1.8	.2	5.6
Norway*	1920-1930	16.4	7.7	8.8	.6	.5	.9
Sweden*	1920-1930	23.8	-1.5	25.3	.4	-.04	1.4
Southern and Eastern Europe	—	—	—	—	—	—	—
Southern Europe	—	645	61	584	.9	.2	2.0
Italy††	1921-1931	340.0	-34.3	374.3	.9	-.2	2.0
Portugal*	1920-1930	79.3	54.2	25.1	1.2	1.0	2.1
Spain††	1920-1930	226.1	41.5	184.6	1.0	.3	2.0
Eastern Europe	—	—	—	—	—	—	—
Bulgaria*	1920-1926	105.3	78.0	27.3	2.0	1.9	2.6
Greece‡	1920-1928	156.7	49.4	107.3	2.8	1.5	4.8
Poland*	1921-1931	482.4	259.0	204.6	1.6	1.2	2.7

\* Administrative definition (in Norway including satellite towns in technically rural areas).

† Places of 1,500 or more inhabitants classified as urban, the remainder as rural.

‡ Places of 2,000 or more inhabitants classified as urban, the remainder as rural.

§ Places of 5,000 or more inhabitants classified as urban, the remainder as rural.

†† Places of 10,000 or more inhabitants classified as urban, the remainder as rural.

POPULATION CHANGE

TABLE 5 (Continued)

Average Annual Changes in Urban and Rural Populations in Interwar Years:  
Later Intercensal Periods

Regions and Countries	Intercensal Periods	Average Annual Change					
		Numbers (000's)			Per Cent		
		Total	Rural	Urban	Total	Rural	Urban
West-Central Europe	—	—	—	—	—	—	—
Belgium††	1930-1940	33.8	14.5	19.3	.4	.3	.5
France*	1931-1936	14.4	-95.6	110.1	.03	-.5	.5
Germany (1939 area)‡	1933-1939	496.0	5.3	490.7	.6	.02	.9
Hungary (1941 area)††	1930-1941	92.7	41.8	50.9	.7	.5	1.0
Netherlands§	1930-1939	99.8	13.6	86.2	1.2	.8	1.3
Switzerland‡	1930-1941	18.1	-.8	19.0	.04	-.05	.7
Northern Europe	—	—	—	—	—	—	—
Denmark*	1930-1940	29.4	3.0	26.4	.8	.1	1.6
Finland*	1930-1938	24.6	1.0	23.6	.7	.03	3.1
Latvia*	1930-1935	10.1	7.4	2.7	.5	.6	.4
Sweden*	1930-1940	22.9	-15.6	38.5	.4	-.4	1.8
Southern Europe	—	—	—	—	—	—	—
Italy††	1931-1936	253.6	-6.3	259.9	.6	-.03	1.2
Spain††	1930-1940	231.4	-21.2	252.6	.9	-.2	2.2
Eastern Europe	—	—	—	—	—	—	—
Bulgaria*	1926-1934	74.9	53.4	21.6	1.3	1.2	1.8
U.S.S.R.	1926-1939	1,940.3	-509.6	2,450.0	1.2	-.4	6.0

\* Administrative definition.

‡ Places of 2,000 or more inhabitants classified as urban, the remainder as rural.

§ Places of 5,000 or more inhabitants classified as urban, the remainder as rural.

†† Places of 10,000 or more inhabitants classified as urban, the remainder as rural.

absorbing formerly rural areas into the vortex of urban living. Obviously administrative changes do not perfectly accord with the changing territorial spread of urban settlement. But there is undoubtedly a rough correspondence, and the changes of urban population arising from reclassification, as well as increase of the town population in a fixed area, measure the advance of urbanization.

*The 'Twenties.* The interwar pattern of urban and rural population growth in Europe is apparent despite serious heterogeneity of definition and the paucity of data for the 'thirties. Though there was substantial growth of total population, the rural populations of Western Europe were generally stationary or declining in the 'twenties. The exceptions are those of England, which is so highly urbanized that the conventional administrative distinction between urban and rural has rather little significance, and the Netherlands, where the basis of classifi-

## EUROPE'S POPULATION IN THE INTERWAR YEARS

cation used results in the inclusion of much territory as rural that in other countries would be classified as urban.<sup>13</sup>

The rural populations of Northern Europe were still increasing during the 'twenties. In the thinly settled lands of the North there have been both rural industry and a prosperous agriculture, factors which may have retarded the flow of rural-urban migration. But only in Finland was the numerical increase of the rural population greater than that of the urban. In the countries of West-Central Europe the total average annual loss of rural population in the 'twenties amounted to something approximating one hundred thousand a year, with a total of perhaps a million in the decade.<sup>14</sup> All of the population gain occurred in the urban population which grew some 11 million in the decade.

In Southern Europe the rural populations were still rising except in the more urbanized regions of Italy and Spain. But nine-tenths of the total population increment occurred in the towns, which were growing more rapidly than in the more developed countries of Western Europe.

In Eastern Europe the rural populations were increasing rapidly both in number and in rate. The numerical increase in the large agrarian populations of this region was probably greater than that of the towns, though the available information is incomplete. In terms of growth rates, the rural populations of the East were increasing about as fast as the urban populations of the West. At the same time the growth rates of the urban populations in the agrarian countries were the highest in Europe west of the Soviet Union. The cities and towns were small and few in number, but they were growing more rapidly than those of the industrial West.

Thus in Europe generally the more industrial countries were losing rural population in the 'twenties and all of the population growth was concentrated in the cities and towns. In agrarian Europe the rural population was still increasing, but the spreading nuclei of urban development were growing even more rapidly, reflecting the emergence of an urban civilization in this formerly undeveloped region.

*The 'Thirties.* Economic conditions of the 'thirties were not conducive to rural-urban migration and the development of cities. Indeed there was much discussion of a "back-to-the-land" movement forced by the widespread unemployment in the cities. But for the decade as a whole it is apparent that the currents were still cityward. In almost every country for which there is a census record for the 'thirties, the cities and towns continued to absorb people from the countryside, despite differentials in natural increase favoring the rural areas.

The effects of the depression on rural-urban migration are reflected in the revival of rural population growth in a number of Western countries, though the actual changes are less significant than might be assumed from the technical substitution of growth for decline.<sup>15</sup> In those countries of West-Central Europe for which materials are available the growth of the total population was entirely attributable to the increase in the urban population; as in the

<sup>13</sup> The high rate of natural increase in the rural (and urban) Netherlands also contributes to this result.

<sup>14</sup> The specific figure will, of course, vary with the definitions employed.

<sup>15</sup> Thus a comparison of the data for the two decades is biased by the different definitions used for Belgium and by the territorial changes affecting Germany and Hungary. Belgian data for 1930-1940 were not available on a basis comparable to that employed for 1920-1930. Since the "rural" classification used in 1930-1940 includes all communes of under 10,000 population, the "rural" growth is bolstered by increases more properly allocable to the urban population.

As may be seen below, in the territory of Germany proper, urbanization was more intense under the Nazis than in the immediately preceding period, despite Nazi efforts to keep the peasant on the land:

	<i>Average Annual Per Cent Change</i>		
	<i>Total</i>	<i>Rural</i>	<i>Urban</i>
Germany (Old Reich), 1925-1933	.6	-.4	1.1
1933-1939	.8	-.6	1.5

## POPULATION CHANGE

previous decade there was a slight decline in the rural population in the region as a whole and substantial increase in the urban districts.

In those Northern countries for which data are available relating to both decades, the growth of the rural population was generally smaller in the 'thirties than in the 'twenties despite the depression. In the whole region of Northwestern and Central Europe the rural population was roughly stationary in the 'thirties. As in the 'twenties, the overwhelming proportion of total population growth was concentrated in the towns and cities.

The materials for 1930-1939 in Southern and Eastern Europe are fragmentary. They indicate a continued cityward drift, even accelerated over the pace of the 'twenties, with a continued but slackening growth of the rural populations. In Southern Europe, particularly, the rural areas were giving ground before the advancing urban populations, and in all countries the pace of urban development appears to have been rapid.

In this regard the most spectacular changes of the interwar period were those of the Soviet Union after collectivization and the industrial five-year plans. In 1926 the U.S.S.R. was among the most rural nations of Europe, with only 18 per cent of its population classified as urban. In the years between 1926 and 1939 the urban population grew from 26 to 56 million, and expanded to 33 per cent of the total. In the approximately 12-year interval between the censuses<sup>16</sup> the cities and towns increased some 30 million; it is no wonder that the housing and other facilities of the Russian cities were severely taxed in the prewar period!

At the same time the rural population of the Soviet Union fell some 6 million as the result of the hardships of collectivization and the greater agricultural efficiency that provided the labor surplus for the enormous industrial development in the towns and cities. Though still a predominantly rural country in 1939, the Soviet Union underwent extremely intensive urbanization in the interwar years.

Taking Europe as a whole, the interwar period was one of great urban development. In Northwestern and Central Europe the towns absorbed almost all of the population growth. In some countries there was actual as well as relative depopulation of the countryside, though in general the rural population was about stationary. In Southern and Eastern Europe the town populations were expanding very rapidly in the interwar period, but owing to their small initial size this growth was insufficient to absorb the large rural surplus. The rural populations were still growing—rapidly in the 'twenties (aside from Italy), perhaps less rapidly in the 'thirties, though the data are not definitive for the latter decade. Finally, in the Soviet Union the huge increase in the total population was entirely absorbed in the urban areas. Of the total 93.5 million population increment in Europe and the Soviet Union, not less than 80 million was in the urban population.

Thus in the interwar period very powerful centripetal forces were at work in the shifts of population within European countries. The farms and rural populations were giving up people to the towns, the towns were growing into cities, and the great metropolises were absorbing a growing share of Europe's population. In 1920 there were only 8 European cities with over a million inhabitants; by the end of the interwar period this number had exactly doubled (Table 6).

But the centralizing tendency was not without its limits. The largest cities in Europe, the great capitals of Western European countries, were not growing as fast as many smaller cities, nor as fast as the emerging metropolises of the East and the South. London, Paris, and Berlin were still expanding rapidly in the area of their direct influence; their central cities were losing people to the mushrooming suburbs. But in balance these cities, with Vienna, were

<sup>16</sup> December 17, 1926 to January 17, 1939.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

TABLE 6  
Interwar Population Changes in European Cities Having  
a Million or More Inhabitants<sup>1</sup>

Cities <sup>2</sup>	Interwar Period				Change	
	Beginning		Ending		Absolute Figures (000's)	Average Annual Per Cent
	Date	Population (000's)	Date	Population (000's)		
Greater London	6/21	7,480	6/38	8,700	1,220	.9
London (County)	6/21	4,485	6/38	4,063	-422	-.6
Greater Paris	3/21	4,412	3/36	4,963	551	.8
Paris (City)	3/21	2,906	3/36	2,830	-76	-.2
Berlin	6/25	4,024	5/39	4,339	315	.5
Moscow	12/26	2,029	1/39	4,137	2,108	5.7
Leningrad	12/26	1,690	1/39	3,191	1,501	5.1
Vienna	3/23	1,866	5/39	1,930	64	.2
Hamburg	6/25	1,568	5/39	1,712	144	.6
Greater Budapest	12/20	1,218	1/41	1,678	460	1.6
Budapest (City)	12/20	930	1/41	1,163	233	1.1
Rome	12/21	692	12/40	1,368	676	3.5
Warsaw	9/21	937	6/40	1,307	370	1.8
Milan	12/21	836	12/40	1,238	402	2.0
Glasgow	6/21	1,034	6/40	1,132	98	.5
Madrid	12/20	751	12/40	1,089	338	1.8
Barcelona	12/20	710	12/40	1,081	371	2.1
Birmingham	1/21	922	6/38	1,048	126	.8
Bucharest	12/30	639	4/41	1,000	361	4.3

<sup>1</sup> Figures given are official census counts except in the following cases for which estimates are utilized for the later dates: London, Rome, Warsaw, Milan, Glasgow, and Birmingham.

<sup>2</sup> Owing to the union of Athens and Piraeus, the enlarged Greek capital probably exceeded a million population at the time of the 1940 census. However, in the absence of definitive data from this census Athens has been omitted from the list.

the slowest growing of European capitals in the million class. They continued to be the end destination of much of the balance of migration in their respective countries.<sup>17</sup> But low natural increase in these cities, and in the town and rural hinterlands from which much of their population growth is drawn, has slowed the rates of growth. Furthermore, their very size makes huge increments necessary to maintain earlier rates of expansion. Smaller centers in countries of high natural increase have both the advantage of large natural surpluses of people on the land and of relatively small urban populations in relation to the reservoirs of populations in their rural hinterlands.

Thus, within each country the universal trends of centralization were continuing. But at the same time, the lower natural increase of industrial Europe led to changes in distribution favoring the agrarian and peripheral countries of the East and South. It was in these countries and, above all, in the Soviet Union, that the greatest new urban developments were occurring.

<sup>17</sup> Cf. Chapter VIII.

#### POPULATION CHANGE

It will be obvious even from this brief survey that population growth in Europe is not simply a function of the available food supply or of the available means of subsistence in general. Taking the continent as a whole, population growth was greatest in those countries (and often within countries, in those regions) that provide the poorest living for their inhabitants. Population growth is a function of a complicated nexus of social and economic determinants that cannot be reduced to simple equations relating numbers to the available means of subsistence. Mechanically, population growth is the numerical change derived from the balance of three separate elements: births, deaths, and migration, each responsive in its own way to the currents of economic and social developments. In the chapters that follow, an attempt will be made to analyze the components of population change in Europe and to indicate some of the social and economic determinants involved.

## CHAPTER IV

### THE BALANCE OF BIRTHS AND DEATHS

#### *The Vital Revolution*

ALL population gain or loss is the net result of balancing three elements: births, deaths, and migration. People are born, they die, or they move; these are the components of population change. Each is affected in its own way by innumerable cultural influences, but the trends of births and deaths, at least, have conformed to a clear pattern of development in Europe.

Following in the wake of the agricultural and industrial revolutions in Europe has been a revolution in vital phenomena. This revolution has in turn made possible the enormous population growth of modern Europe and now is bringing about its end. In this major sweep of demographic development migration has played a relatively minor role.

Europe entered the modern era with what might be called the primitive phase of population development. Life was cheap. Death rates were fantastically high by modern standards. The scourges symbolized by the Four Horsemen of the Apocalypse—famine, pestilence, want, and war—were accepted as the inevitable destroyers of human life. On the other hand, life was as carelessly created as it was destroyed. Birth rates, like death rates, were high. In normal years there probably was a considerable surplus of births over deaths, which, however, was wiped out periodically by disasters of one character or another. It was the picture gloomily painted by Malthus of a population ever pressing on the means of subsistence, with neither birth nor death control. By modern standards human reproduction, like the production of goods, was inefficient, wasteful, and inhumane.

Under such conditions and in a comparatively static stage of cultural development, population increase was inevitably small. Such increase as occurred in the Middle Ages was largely that attributable to the agricultural settlement of undeveloped areas in Europe, which areas were surprisingly large even in relatively recent periods. Even the reawakening of Europe associated with the Renaissance and the era of discovery did not at first fundamentally change the demographic situation. Some expansion of population was made possible by the advance of the arts, but progress was slow, and both birth and death rates continued very high.

The dismal outlook of never-ending pressure of population on the food supply was finally dispelled in Western civilization by the more modern achievements of the agricultural and industrial revolutions, and to a lesser extent by the exploitation of new lands and of old peoples overseas. These have combined to provide the basis for both rising levels of living and the tremendous population increase of the nineteenth and twentieth centuries.

#### *The Control of Deaths*

Growth was achieved through the restriction of deaths, not through a higher birth rate. Lives were saved in many ways. A full listing of the contributing factors would be a catalog of the material achievements of the modern era. The food supply was enhanced and insured by better agricultural methods and by better transportation facilities. The New World provided an outlet for surplus populations and a source of food and raw materials. Growing industry supplied the means of protection against physical hardships and the basis of a generally rising standard of living. Great advances in medical science and practice, implemented by improvement of sanitary facilities, by public protection of the food and water supplies, and by other public health measures, increasingly spared the population from the ravages of epidemics and contagious diseases of many kinds. Underlying this economic,



sanitary, and medical progress has been the progressive establishment of public order and of police protection. In peace the modern state provides the most efficient protection to life and property ever afforded the population. Finally, and perhaps most important of all, the material achievements of Western civilization created an attitude of mind in which the processes of life and death were regarded as subject to rational human influence and control and not the inevitable decree of divine ordinance. Modern Western civilization, more than any previous civilization, places a high value on the preservation of human life.

Aside from irregularities caused by war and other special circumstances, there has been a universal downward trend of death rates<sup>1</sup> in Europe in the past century. The successful reduction of deaths from so-called "natural" causes has been one of the greatest achievements of Western civilization. In the early nineteenth century the death rate in Europe as a whole probably averaged in the neighborhood of 30 per thousand. Death rates were lower in Northwestern Europe as the result of considerable gains made in the eighteenth century in this area. They appear to have been considerably higher in Eastern Europe than in the West and have continued so to the present time. Though there probably was a gradual decline of death rates in the first half of the nineteenth century the greatest advances have been made since 1870. These have been shared by all regions and countries and have proceeded with great consistency. At the present the peace-time death rates in Europe average well below 20 and in the most progressive countries have reached as low as 10.

The likelihood of dying in a given year for the average European has been cut almost in half since 1800. In the eighteenth century the average expectation of life at birth probably did not exceed 35 years and in the countries of inferior living conditions probably was no higher than in India today. By the nineteen-thirties this average duration of life had been increased to 60 in many Western European countries. In the most advanced it had reached 65 and was still rising.

### *The Control of Births*

The control of deaths has quite understandably been followed by the control of births. Our ancestors were careless of life both in its inception and in its destruction. The depredations of natural disaster and war seemed to require reckless prolificacy if the race were to survive. However, the discovery of the extent to which disease could be rationally controlled and personal welfare promoted by material means naturally led to the recognition that the burdens of childbearing could also be reduced. It is significant that the small family pattern has spread most rapidly among those classes and nations in which the death rates are lowest, and in recent decades there has been a close correlation between declining fertility and declining mortality.

The fundamental causes of declining birth rates, like those of declining death rates, lie in the great cultural changes accompanying the development of a modern industrial civilization. The falling birth rate historically observable in every European country is not attributable in any major degree to changes in human fecundity, the capacity to bear children. There is much evidence that in the absence of voluntary birth limitation women have as large families as they used to have. At the same time high correlations have been established between class

<sup>1</sup> Birth and death rates are the number of annual births and deaths occurring per 1,000 population. Thus if births and deaths number 25,000 and 15,000 respectively in a country of 1,000,000 inhabitants the birth rate is 25 and the death rate 15 per thousand. The rate of natural increase, measuring the difference between the two, is thus 10 per thousand. The historical trends in European birth and death rates as recorded in official figures are fully detailed in Robert R. Kuczynski, *The Balance of Births and Deaths*; Vol. I, *Western and Northern Europe* (New York: Macmillan, 1928); and Vol. II, *Eastern and Southern Europe* (Washington: Brookings Institution, 1931).

differences in family size and in the extent of contraceptive practice—an association that strongly suggests causal relationship.

The fall of the birth rate in the modern world is a function of conscious and voluntary restriction of births through abortion and contraception. But in this process birth control and abortion must be regarded only as means; the more significant causes must be sought in the motivation resulting in family limitation. It is not simply a question of the availability of contraceptive devices. Birth control was effectively practiced by the French peasant long before the Bradlaugh-Besant trials and before the contemporary agitation on behalf of birth control by liberal elements throughout Western Europe. General knowledge and availability of contraceptive techniques have undoubtedly popularized their use; but use implies motivation—strong and persistent motivation in view of the inefficiency and inconvenience of the more commonly practiced methods of birth control and abortion.

The spreading rational control of human fertility responsible for declining birth rates is associated with the increasing urbanization, industrialization, and popular education in the modern world. In terms of specific motivations it derives from the economic handicaps and social inconveniences of large families in contemporary urban society. On the farms children are fed and clothed at a minimum of expense and at the same time furnish a source of cheap labor to the family enterprise. In the towns and cities children are more expensive to maintain, without any comparable economic value. At the same time they are physically more of a burden and a source of inconvenience in the crowded quarters of the typical urban home.

In broader terms the declining birth rate reflects the growing individualism and rising levels of popular aspiration in a society freed from the rigid social structure and taboos of a peasant community. Thus added to the specific economic deterrents to childbearing are those deriving from the changing family institution. In the modern life of mobile, transitory, social relations the individual is increasingly measured by his personal achievements and possessions rather than by his family status. His position is achieved rather than ascribed by birth and family position. Concurrently many of the social functions performed by the family in a rural society have been transferred to the factory, the school, and the state. The family is no longer the typical unit of economic production. Its members increasingly turn to outside agencies for their education, their recreation, and their economic security. The importance of the family and its perpetuation is no longer of such vital importance to the parents; a large family is now usually a positive hindrance to advancement in the social and economic status of the parents. At the same time the family goals have changed to that of providing maximum welfare for the individual child. A large family both hinders the achievement of the common aspirations of parents and of their hopes for their individual children.

Given changed goals, the general availability of contraceptive knowledge and materials has facilitated their achievement, especially in the context of the modern pragmatic view of life favoring the active solution of material problems rather than their passive acceptance. Finally, with the general establishment of the small family system the physical arrangements of housing, etc., make the position of the large family difficult and social pressure (e.g., in the form of ridicule) adds psychological discomfiture to the increasing economic problem of caring for a large family. Once begun there are strong elements of inertia promoting the wider and wider acceptance of the small family pattern.

Though it has similar basic origins, the decline of the birth rate has generally appeared later, and, in its initial stages, proceeded less rapidly, than the decline of the death rate. Birth

rates generally displayed no clear downward trend prior to 1870<sup>2</sup> and in countries of more retarded demographic evolution did not commence before 1900.

The lag of birth rate trends is to have been expected. The restriction of deaths meets with almost universal approval among all peoples; the restriction of births, on the other hand, conflicts with fundamental values universally developed to foster the survival of the race. Moral and other sanctions have generally encouraged the saving of lives, but have often impeded the practice of contraception. In the second place, many of the gains in mortality derive not from individual but from governmental action. Consequently the protection of the individual from epidemic disease, for example, may occur quite without the exercise of any initiative on his part. Thus great saving of life has occurred in India through the enforcement of rudimentary public health measures imposed by government officials without any active cooperation on the part of the Indian masses. The control of births, by contrast, requires individual motivation and action to be effective. It therefore appears at a later stage in modern demographic evolution.

Because the fall of the death rate antedated that of the birth rate the margin of births over deaths has been large and the population has grown rapidly. High rates of natural increase continued even after the initial declines in fertility because the fall of mortality maintained the large excess of births over deaths. However, in recent decades the fall of the birth rate has gained even greater momentum than that of the death rate. Even before World War I the margin of natural increase was contracting in a number of Western countries. In the inter-war period it was shrinking in every European country with the possible exception of the Soviet Union.

The vital revolution has thus normally progressed through three stages: (1) a period of declining death rates with constant birth rates and rising natural increase (rapid growth), (2) a period of continued declines in the death rates, with parallel declines in the birth rate still lagging sufficiently to permit a large margin of natural increase (continued rapid growth), and (3) a period of slowing declines in death rates, continued declines in birth rates, and a contraction of natural increase (slowing growth).

#### *Course of the Vital Revolution in the Twentieth Century*

The nature of vital changes occurring in recent decades is illustrated in the three series of maps comprising Figures 10 to 12. Because the agricultural and industrial revolutions were first the achievement of Western Europe the concurrent vital revolution began in Western countries. As the result of a century of declining death rates health conditions were much more favorable in these countries than in Eastern Europe. Before the First World War, for example, death rates in England and in Scandinavia were less than half those prevailing in Czarist Russia, which remained in a situation characteristic of all Europe at an earlier period.

Birth declines had already appeared in all European countries prior to World War I, and, as in the case of the death rate, the Western countries led the trend. The "birth strike" is in no sense a creation of the First World War. In France, where birth restriction first achieved importance in Europe, the effects of almost a century of declining birth rates were reflected in the lowest rates of the contemporary Europe. In all other countries there was a very substantial margin of births over deaths. Birth rates were still high in Germany and primitive fertility matched the primitive mortality of Eastern Europe.

After the First World War appreciable gains in reducing mortality had been made over the prewar situation. The war obviously did not permanently undermine the health of the population and the previous course of mortality declines was continued. As before, death rates

<sup>2</sup> Notable exceptions are France and Sweden.

EUROPE'S POPULATION IN THE INTERWAR YEARS

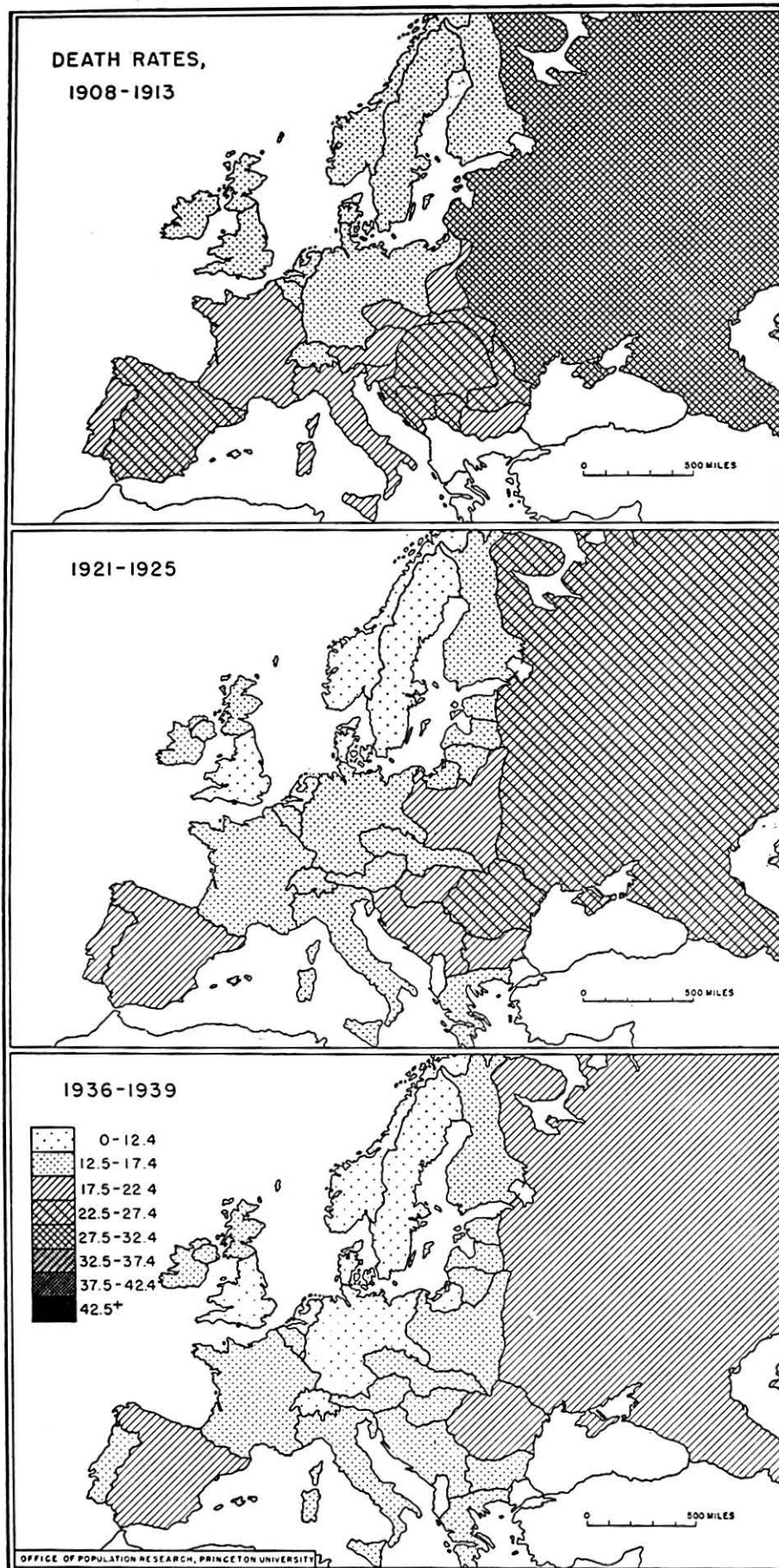


FIGURE 10. Death rates in Europe, 1908-1913, 1921-1925, and 1936-1939.

THE BALANCE OF BIRTHS AND DEATHS

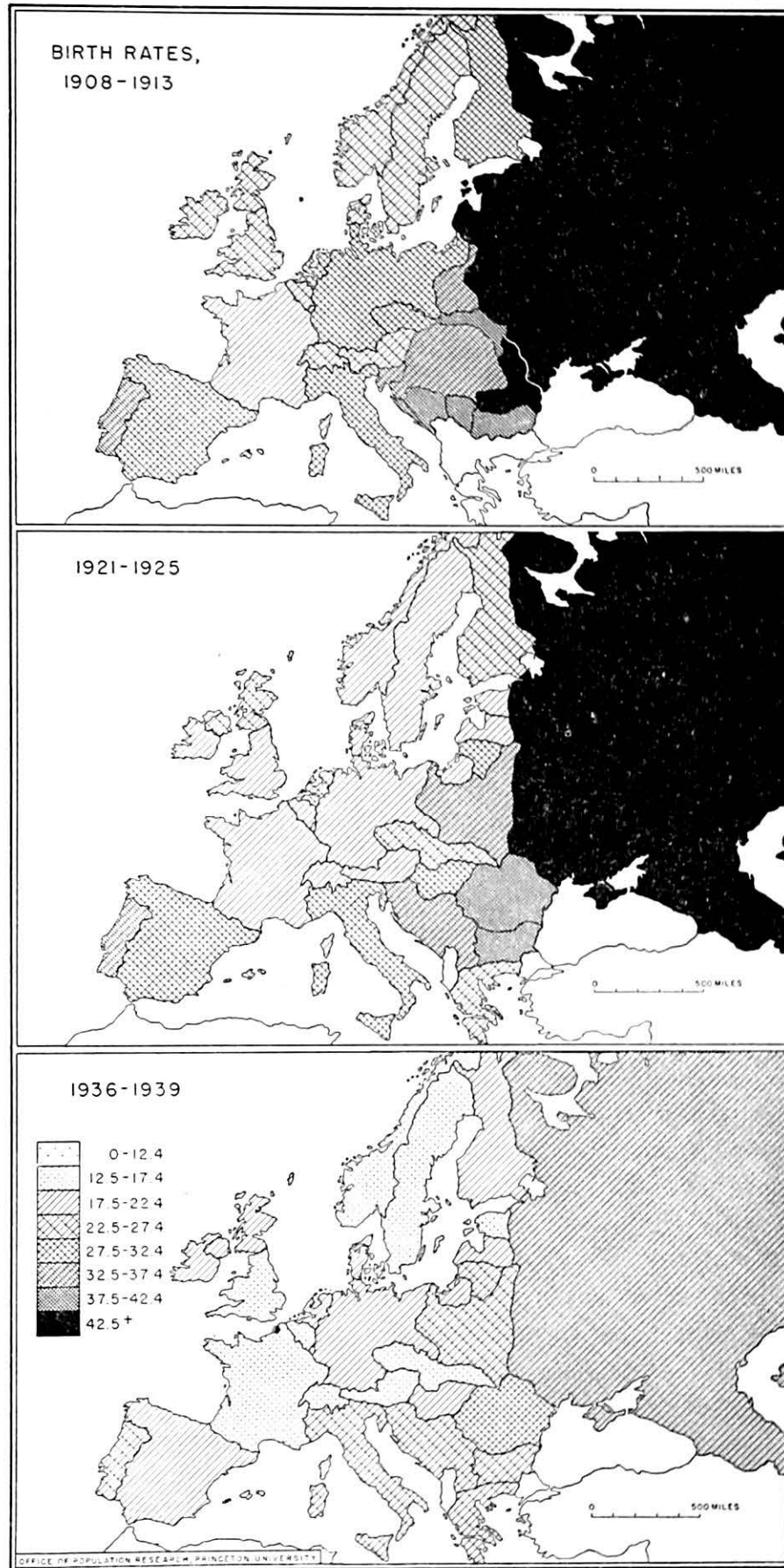


FIGURE 11. Birth rates in Europe, 1908-1913, 1921-1925, and 1936-1939.

in England and in Scandinavia were only half those to be observed in the Soviet Union,<sup>8</sup> with other countries intermediate between these two extremes. In birth rates the prewar position of France had become typical of Western Europe and the small family pattern was spreading eastward. Only in Southern Europe were the changes small.

The death rates of 1936-1939 reflect the further reductions of mortality in the interwar period. The gains in Eastern Europe are especially marked. As the result of great progress in public health the death rates in Eastern European countries prior to the recent war were comparable to those of Western Europe before World War I. This fact was often overlooked in the consideration of the potential effects of the war in these areas. The rapid spread of mortality control is one of the brightest aspects of modern civilization. Even the effects of the two world wars have been relatively small as compared with the saving of lives attributable to peace-time reductions in mortality.

However, there are obvious limits to the reduction of the death rate. Death can be postponed but never eliminated. There is evidence that in some respects the limits of possible improvements in the crude death rate are being approached. In Western European countries the interwar reduction of the death rate was small as compared with previous periods. In terms of crude death rates a number of Western countries had probably already reached their minimum in the late 'thirties, which was attainable at this time only because of a peculiarly favorable age distribution.

On the other hand, birth rates declined rapidly over the interwar period in all areas. These declines were accelerated by the depression in industrial countries and to some extent checked later by improvements in economic conditions incident to recovery and rearmament. But in all cases birth rates were substantially lower at the end than at the beginning of the interwar period and very much lower than before World War I. The losses were proportionately least in Germany and the Soviet Union, both of which took strong measures to check the trend. Despite considerable success of National Socialist pronatalist policies, the German birth rate was still below earlier levels. It averaged 19.5 per thousand in 1936-1939, as compared with 22.1 in 1921-1925 and 29.5 in 1910-1913. Though there is little information on Soviet vital trends since 1930, the reported birth rate of 38.3 in 1938 was considerably below the average of 43.8 in European Russia reported for 1924-1926 and 45.6 in European Russia (including territories of lower fertility lost as the result of World War I) in 1908-1913.

The trends of natural increase (illustrated by Figure 12) are of course determined by the balance of births and deaths. In the early stages of the vital revolution they rise in direct relation to the fall of the death rate, since the birth rates remain relatively constant. Even after the birth rate starts to fall, the rate of natural increase continues high and may even increase because, at first, death rates fall as rapidly or more rapidly than birth rates.

Before the First World War the natural growth of the population was still large in most of Europe despite the fact that birth rates had already fallen very much in many countries. Only in France was there little margin of natural increase. Southern Europe continued to show the relatively low rates of natural increase that characterized it in the nineteenth century. In Eastern Europe high birth rates were sufficient to cause rapid increase despite poor health conditions.

In contrast with the trends of birth and death rates, rates of natural growth were even increased in the Eastern countries after the First World War. This occurred despite fertility decline, owing to the effective and speedy reduction of mortality in this region. Even in Central

<sup>8</sup> The data for the Soviet Union relate to the years 1924-1926, vital rates in the early 'twenties being atypical owing to the effects of civil war and revolution.

THE BALANCE OF BIRTHS AND DEATHS

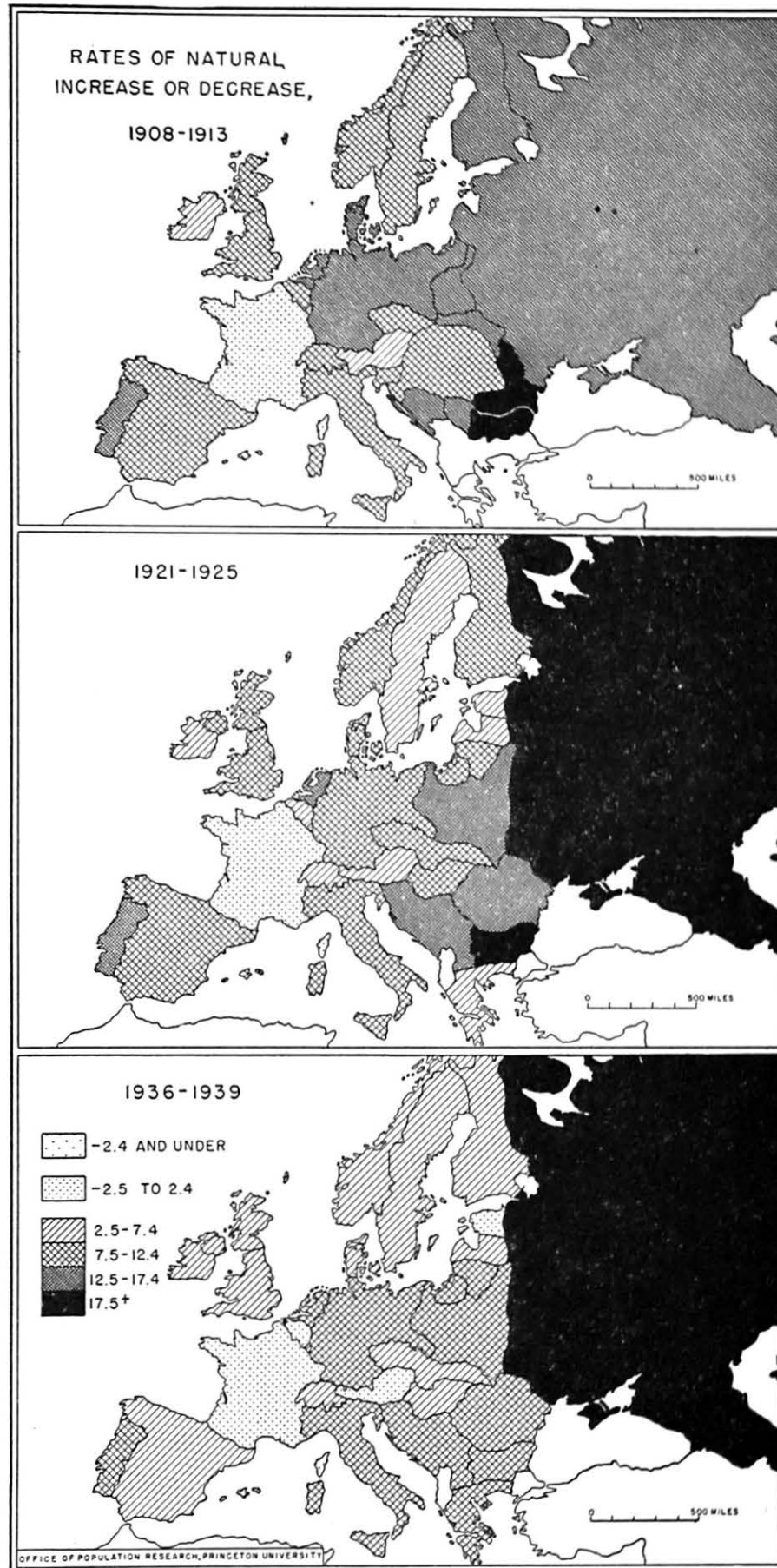


FIGURE 12. Rates of natural increase in Europe, 1908-1913, 1921-1925, and 1936-1939.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

Europe further gains in mortality to some extent made possible a continuation of previous rates of natural increase. An outstanding exception is Germany where the birth rate had been falling with extreme rapidity since 1900.

As is apparent from a comparison of the maps for 1921-1925 and 1936-1939, the fall of the birth rate was not balanced by comparable further declines of the death rate in the interwar period. Only the Soviet Union was still at a stage of population evolution at which this was a normal development. In general there was a marked diminution in growth rates. In France deaths already exceeded births and this would have been true in Austria but for the sharp rise in the birth rate in 1939 attendant upon the introduction of German population measures after *Anschluss*. Owing to the same factor, natural increase in Germany appears relatively high. The figure for Spain is low owing to the effects of civil war, but even so the official vital statistics probably indicate a more favorable situation than actually prevailed. The only significant rise in natural increase in the interwar years was reported for Greece. This may be attributable in part to the disorganized condition of the country arising from the conflict with Turkey in the early 'twenties and the subsequent inward flow of a million refugees. However, the vital statistics of Greece prior to 1930 were clearly very incomplete and the apparent increase is almost certainly a statistical artifact arising from the improvement in the official recording of vital events, especially births.

### *Vital Rates in the Interwar Period*

From the previous discussion it will have become obvious that the vital revolution has displayed uniformities of pattern both in time and in space. Chronologically, the progression from the primitive demographic condition of very high birth rates has followed a sequence of first, declining death rates and rising natural increase; second, declining birth and death rates accompanied by substantial natural increase; and finally, a diminution of natural growth arising from continued reductions in fertility without numerically compensating gains in mortality.

Geographically speaking it is apparent that the vital revolution first evolved in Western Europe and then spread eastward with a considerable degree of regularity. This relationship of time and distance from the centers of diffusion is shown more precisely in Figures 13-15, which give vital rates by smaller political divisions, the figures plotted being presented in full in Appendix II. National boundaries are lines drawn for political purposes, by no means universally following either natural or cultural boundaries. More often than not international borders divide areas of common economic and cultural characteristics. In Europe the national territory often contains regions of very diverse history and cultural development. Small area analysis provides the tools for a more thorough study of the European cultural pattern than is possible using only the statistics of countries as a whole.

### *Interwar Death Rates*

The control of deaths is the aspect of the vital revolution that has existed longest and has proceeded furthest. In Northwestern Europe death rates have fallen as low as 10 per thousand. If such low rates prevailed in stationary populations of constant fertility and mortality they would reflect an average expectation of life of 100 years. In actual fact they are made possible by the concentration of the European population in the young ages where deaths are relatively few. When the population grows older, it will be far more difficult to maintain the low death rates of the interwar period. In so far as the crude death rate is concerned, the vital revolution has probably already run its course in Northwestern



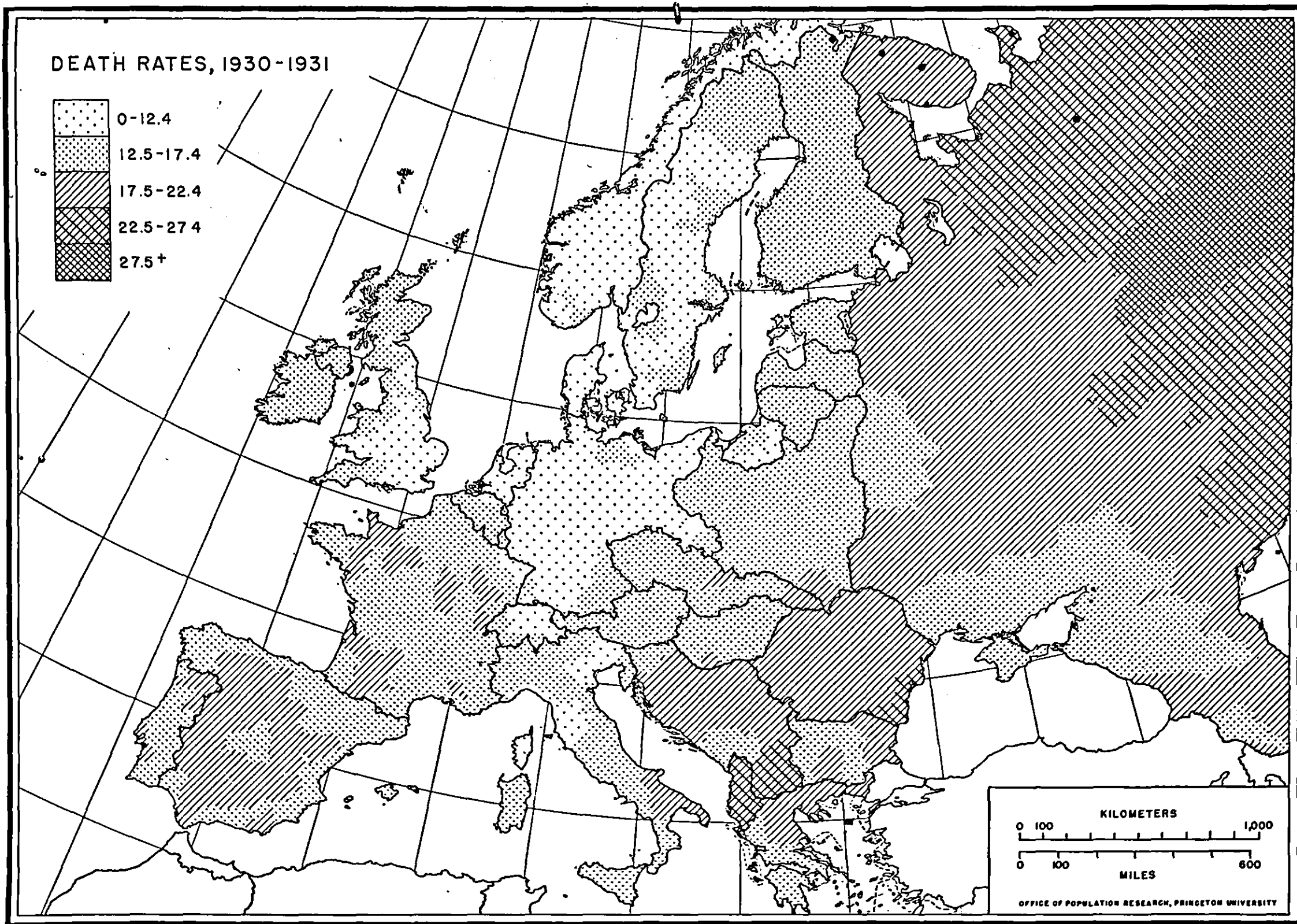


FIGURE 13. Average death rates per 1,000 population in Europe, by minor divisions, 1930-1931.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

Europe, since further reductions in mortality will be counterbalanced by the increasing proportion of the population in the upper ages where the risk of death is greater. This factor was already operating in France, where death rates were relatively high despite actual mortality conditions comparable to, if not quite as favorable as, those in England and Germany.

In the interwar years, the lowest death rates were in Great Britain, Holland, Scandinavia, Germany, and German Switzerland. French Switzerland resembles France, Ticino is similar to Italy. Almost completely surrounding this area of low mortality is a large belt of territory of somewhat higher death rates. Starting from Ireland and Scotland this belt reaches in a great circle including northern Sweden and Finland, the Baltic countries, most of Poland, White Russia, and Central Europe including the more backward German areas of Upper Silesia and Eastern Bavaria, much of Italy and finally France and the northern and coastal regions of Spain. These are transition areas; in a few years of orderly peace they may be expected to achieve the favorable position of Northwestern Europe in the interwar period.

Lying more remote from Northwestern Europe is a further band of areas in a less advanced stage of transition, including Western Russia, much of the Balkans, the most easterly section of Italy (Apulia and Lucania), and finally the interior of the Iberian peninsula. Certain departments of France technically are included in this category though this is more a function of age composition than of actual risk of death. If adequate allowance could be made for incomplete recording of deaths some areas whose official statistics place them in a lower category would probably be included in this less advanced group. There is ample evidence that the official death rates were below the actual in eastern Poland, in White Russia, and in the Caucasus and Steppe regions of southern Russia. Under-registration of deaths is also a factor in the favorable showing of the Montenegro section of Yugoslavia and to a lesser extent in some districts of Italy, Bulgaria, and Greece.

In the remote regions of Russia and the Balkans death rates are still very high. In the interwar period these areas were just beginning the vital transition that had proceeded for generations in the West. Very spectacular progress is still to be made in these regions. In the Viatka and Ural regions of the U.S.S.R. death rates in the middle of the interwar period were as high as those of British India. But even here great advances were made and even greater are probably on the way.

Differences in death rates to be observed in contemporary Europe probably have no relation whatever to differences in racial or biological capacity to survive. It is only a matter of two generations since Western Europe had death rates quite as high as the worst peacetime death rates now to be observed in backward regions of Eastern Europe. As was pointed out in the discussion of Figure 10 above, the mortality position of Eastern Europe at the outbreak of the recent war was not much inferior to that in Western Europe just prior to the last. Such rapid progress could not lie in the genetic development of immunity to disease. The better health conditions of the West are almost certainly the product of superior standards of education, living conditions, and public health; these are also becoming the property of Eastern Europe. Because so much more progress remains to be made in the East, quantitatively speaking, the regional differences now prevailing are likely to be reduced.

### *Interwar Birth Rates*

Because it has been more recently affected by modern social trends the birth rate shows greater variability than the death rate. Human fertility, as evidenced by the number of births, is subject to many influences of both a biological and cultural nature. In Europe, however, the variation in fertility, like that of mortality, is much more directly the result of

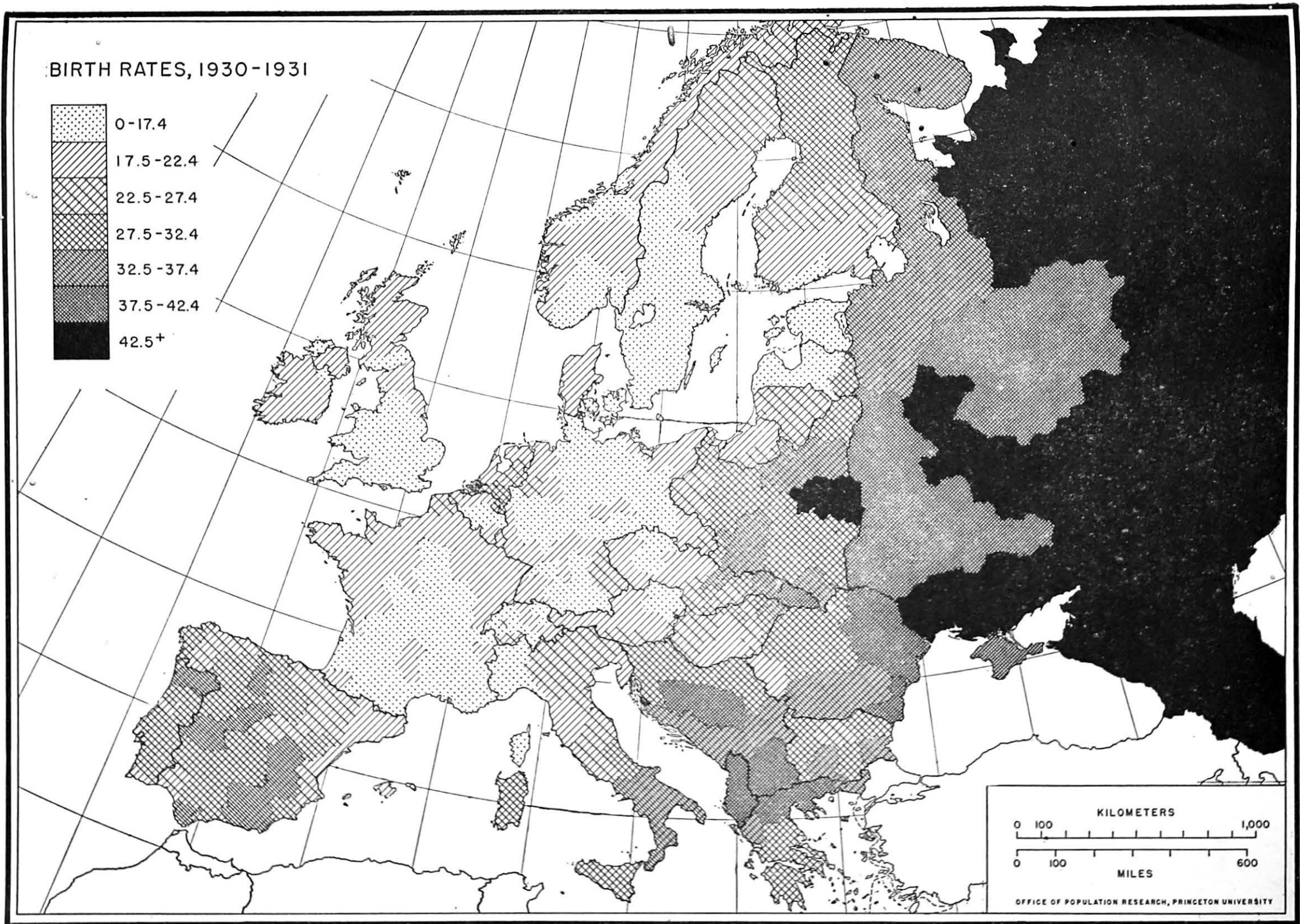


FIGURE 14. Average birth rates per 1,000 population in Europe, by minor divisions, 1930-1931.

social than of biological influences. Differences in fecundity undoubtedly exist, but it is questionable if these differences play an important part in determining differences in actual birth rates. The populations of Eastern Russia were as much as four times as prolific as the inhabitants of some of the larger Western European cities, where birth rates were as low as 10 per thousand. In the extreme case the birth rate of the city of Vienna in 1936 and 1937 had sunk to 5.4 per thousand, while birth rates in the Viatka and Ural regions of the Soviet Union were over 50 per thousand. The latter rates probably approach the limits of biological capacity for reproduction, but the rates for Vienna and other large cities are undoubtedly very far below the biological capacity of their respective populations. The very fact that these same cities had birth rates twice and three times their present size not many years ago supports the common-sense belief that the immediate cause of lower birth rates is the voluntary control of conception and not involuntary sterility.

The map of birth rates therefore reflects the greater or lesser extent to which cultural factors have motivated the use of birth control. In general the practice of contraception has been an aspect of modern urban influences though other elements have promoted or retarded its diffusion.

As a general rule birth rates are lower in the cities than in the countryside. In almost all countries (France being the outstanding exception) the larger the city the lower the birth rate. Consequently, low birth rates are associated with the more urban countries and the more urban regions within countries. As in the case of death rates, birth rates generally rise with increasing distance from the main urban and industrial centers of Northwestern Europe.

Owing perhaps to the recency of its development and certainly to the complexity of factors affecting its progress, the decline of the birth rate has not proceeded with as much regularity as the decline of the death rate. As the small family pattern has spread across the continent important islands of relatively high fertility have resisted the tide. On the other hand, fertility declines have progressed quite rapidly in some areas rather removed from the principal centers of diffusion. Lines of communication, standards of living, traditional cultural associations, religious beliefs, migration, and even land tenure have played a role in the complicated network of determining factors.

France has been traditionally associated with the beginnings of birth declines in Europe, but in recent years has experienced a slower drop in the birth rate than other countries. In contrast with the almost universal experience elsewhere the birth rates of her agricultural populations are as low as those of the urban and industrial populations. The industrialized and urban North displays a higher birth rate than the predominantly rural South, and, in contrast with the historical situation, a higher birth rate than exists in England and the greater part of Germany.

In the United Kingdom and the Northern countries the pattern of birth rates is closely related to the degree of "modernization." Rates are low in England and higher in Scotland and Ireland. In Scandinavia the southern and more developed areas have lower fertility than the more remote regions of the North. Thus, in Denmark rates are higher in the rural Jutland than in the more urbanized islands, on one of which lies Copenhagen. In Norway, they are relatively high in the mountainous Opland and Hedmark regions of the center and in the far north. In Sweden rates are lowest around Stockholm and highest in the North. The progression from south to north is especially clear in Finland. The Baltic countries of Estonia and Latvia have surprisingly low birth rates. Long under Scandinavian and German influence, these were economically the most developed areas of Czarist Russia and at the same

time the areas of lowest birth rates. Despite their rural character the decline of fertility continued in the interwar period.

In Germany birth rates are generally lowest in the predominantly Protestant and industrial populations of the center, highest in the peripheries. In the eastern marches, higher rates tend to reflect the general cultural backwardness of the area, in the South and West, the influence of conservative religious beliefs in predominantly Catholic areas. In the Northwest they are linked to the relatively high fertility of the neighboring Dutch population. The Netherlands is the center of an arc of comparatively high fertility that extends into Germany on the one hand and into Flemish Belgium on the other. The high fertility of this region is an anomaly in view of its high degree of economic and cultural development. The Netherlands is the exception to the rule of low birth rates in Western Europe, an exception not yet adequately explained.

Southern Europe shows the influence of cultural infiltration from France. In birth rates, as in many other characteristics, Piedmont in Italy and Catalonia in Spain are intermediate between southern France and the remainder of their countries. In Italy fertility rises with increasing distance from French cultural influence. On the Iberian peninsula the pattern is mixed, but in general, fertility is lower in the North and in the coastal districts, higher in the interior, with the notable exception of Madrid.

In Central Europe the small family pattern has filtered down the Danube Valley, leaving important islands of higher fertility but with a general progression of rising birth rates from west to east. Lower Austria, and especially Vienna, have very low fertility. Upper Austria and neighboring Czech areas have higher, but still rather low rates. In Hungary, Budapest and the Great Plain and the economically developed Baranya region of the South display lower rates than the lesser developed Transdanubian territory and especially the Northern region, which shades into the high fertility of the Carpathians in Slovakia, the Northern rim of the Danube Valley.

Further down the river there are two islands of low birth rates, one the Banat region of western Rumania, the other the southern bank of the Danube in Bulgaria. The Banat is a relatively developed area with a substantial element of Saxon colonists who came to the region in the eighteenth century. In this and adjacent Transylvania there is a certain amount of small village industry, and a traditional orientation to the West arising from long political association in the Austro-Hungarian Empire and from the presence of large German and Hungarian elements in the populations prior to the recent war.

The cultural influences of the Austro-Hungarian Empire are clear in Rumania and Yugoslavia. Transylvania and Bucovina, formerly part of Austria-Hungary but Rumanian in the interwar period, have substantially lower birth rates than the remainder of the country. In Yugoslavia the old boundary of the Empire is also a boundary between the moderately high birth rates of Croatia-Slavonia (formerly Hungarian territory) and the much higher rates of Serbia and especially of the mountainous Bosnia-Herzegovina, the latter only for a few years under Austrian administration. Bulgaria has lower fertility than other Balkan countries and this trait is particularly evident in the regions more accessible to the West via the Danube. In Greece, the southern peninsula and insular areas, early freed from Turkish domination in the last century and now more developed commercially, present lower birth rates than Macedonia and Epirus in the north.

As one proceeds eastward from Germany across the European plain the level of interwar birth rates ranges from the moderate fertility of Posen in Western Poland to the truly exceptional birth rates of central Russia, which are among the highest in the world. Within

## EUROPE'S POPULATION IN THE INTERWAR YEARS

Poland alone there are very great variations. The pattern is probably somewhat confused by apparent incompleteness of the official Polish vital statistics as regards Ukrainians and Ruthenians resident in the southeastern sections of the country. In the Soviet Union birth rates in the interwar period followed the general west-east pattern. Fertility is high everywhere with the exception of the largest cities. It is lowest in the Leningrad-Karelian region (which has no doubt been influenced by adjoining Baltic regions), in White Russia and the Western Ukraine, and finally in the Central Industrial Region dominated by Moscow.

### *Interwar Rates of Natural Increase*

The balance of births and deaths can be expressed in the rate of natural increase, measuring the population growth in the absence of migration. Except in cities and relatively small areas, natural increase is the major determinant of population growth. Figure 15 indicates the extent to which the populations of Europe were growing from this source in the middle of the interwar period.

Historically most of Europe has had a very substantial margin of natural increase and this was continued during the interwar period. Only in some sections of France and in a number of the large cities was there an excess of deaths over births. As has been noted, in the successive stages of the vital revolution the rates of natural increase are the last of the vital rates to show a definite downward trend.

Variations in both component indices are naturally reflected in the rates of natural increase. The influence of death rates is shown in the position of France. Here higher death rates (arising chiefly from the fact of an older population) resulted in the absence of significant natural increase in much of the country and a substantial excess of deaths in a few departments where death rates were especially high. The existence of relatively high death rates in Eastern Europe naturally tends to reduce natural increase. But since inter-regional differences are greater in birth rates than in death rates, natural increase is affected more by the former than by the latter.

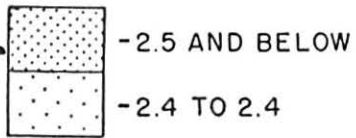
As variations in the death rates level off, it is the variations in fertility that are chiefly responsible for differential natural growth. Thus in Western Europe the quantitative differences in death rates are relatively small except as regards France, where aging of the population has introduced a new factor. When birth rates continue moderately high, as in the Netherlands, natural increase is still very substantial. Where they are low, as in most of Germany, Scandinavia, and the United Kingdom, natural increase is comparatively low. In Central and Eastern Europe the centers of low fertility noted in the discussion of the preceding map also appear as areas of lower natural increase. Despite higher mortality most of Eastern Europe has very high rates of natural increase. In a few remote areas such as Albania and the neighboring regions of Yugoslavia the decline of the death rate had not yet been sufficient to achieve the rapid rates of growth characterizing the surrounding areas. But generally speaking Eastern Europe and especially the Soviet Union were still in the expanding phase of modern demographic change. Though her rapid growth was to some extent checked by difficulties arising from the Communist Revolution, natural increase in much of the Soviet Union was as high as two per cent per annum.

### *Age Structure and Population Growth*

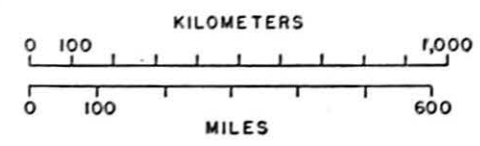
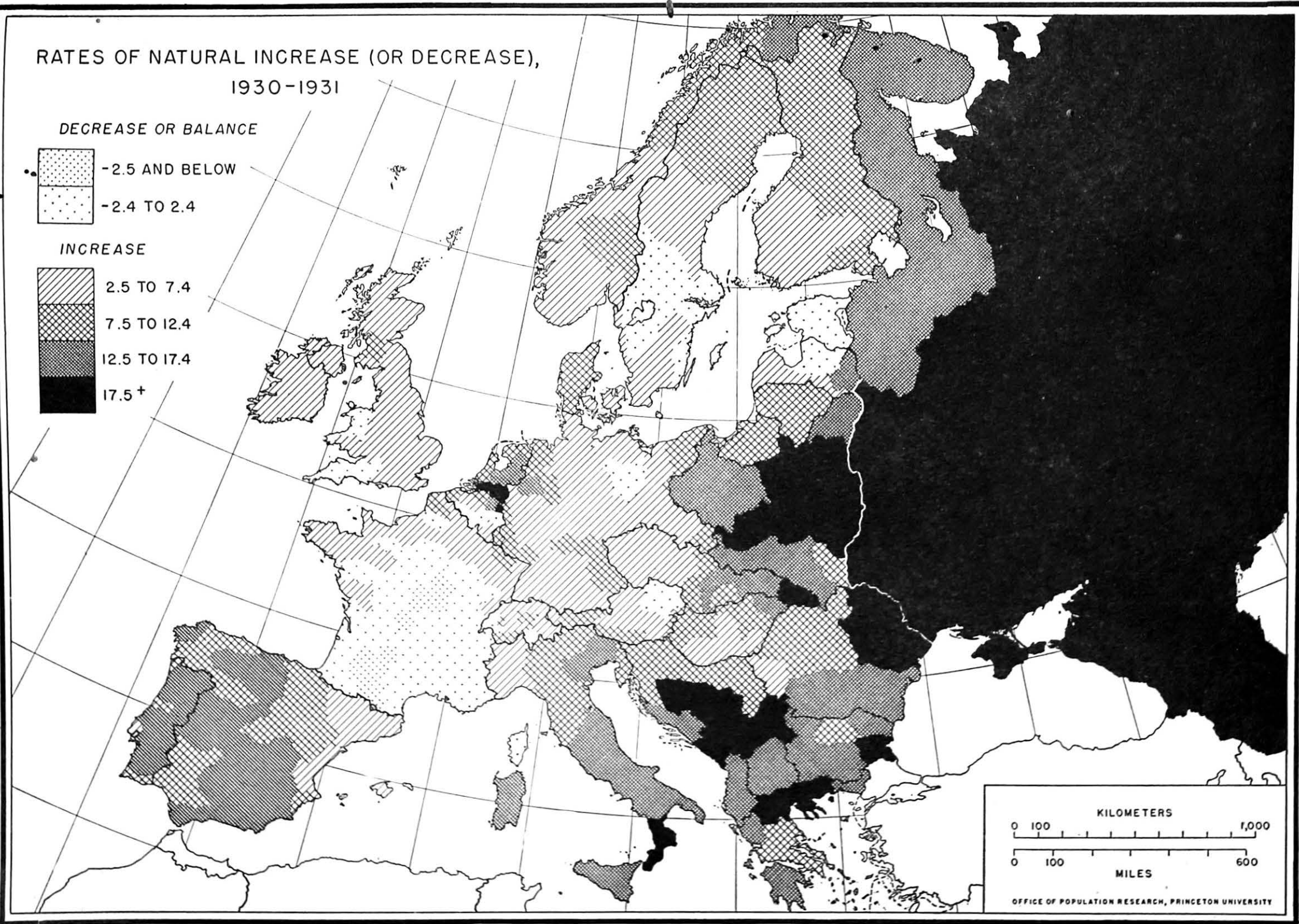
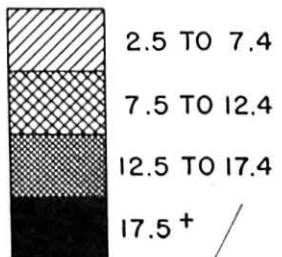
The course of the vital revolution has brought about characteristic changes in population growth and in the relative position of the several regions in this regard. Quite as significant as its effects on population size have been its effects on the age composition of the population.

RATES OF NATURAL INCREASE (OR DECREASE),  
1930-1931

DECREASE OR BALANCE



INCREASE



OFFICE OF POPULATION RESEARCH, PRINCETON UNIVERSITY

FIGURE 15. Average rates of natural increase per 1,000 population in Europe, by minor divisions, 1930-1931.

## THE BALANCE OF BIRTHS AND DEATHS

Changes in the total population are the result of the cumulated changes at each age. Changes in age structure in turn affect present rates of growth and the potentialities for future growth. In most Western countries the present age distribution is one favorable to high birth rates and low death rates, owing to the abnormally large proportion of the total population in the younger adult ages. These are the ages at which most births and relatively few deaths occur. A change in age distribution such as might be anticipated from present vital trends will create a population less favorable to future population growth.

Age structures of the population are conventionally represented by diagrams called age pyramids. In these figures the population at each age (or five-year age group) is measured by a bar, the length of which is proportionate to the size of the age group. Males are shown on the left hand side of the pyramid, females on the right.

It is apparent that in a stationary population, with a fixed birth and death rate, there will be a steady regression of numbers with increasing age. The youngest children, constituting the base of the pyramid, would be most numerous and each older group would be smaller as it was progressively reduced by deaths. However, the age composition of the population is shaped by the entire sequence of vital events occurring since the birth of the oldest living inhabitant. It is shaped by changes in vital trends, by migration, and by catastrophes such as war.

The age pyramids of European countries in 1940 are shown in Figure 16, the total area of the pyramids in each case being determined by the size of the total population. Much of the past history of European populations and some of the future may be read in this chart. The turbulence of European vital history is evidenced by the fact that the smooth regression of numbers with rising age is almost nonexistent in Europe. In most countries the scars of the First World War are clearly evident. The loss of men of military age in 1914-1918 is reflected in the deficit of males at ages 40-55 among all the major belligerents. In these countries females are far more numerous than males at these ages. A sharper gash is observable at age 20-24 for both sexes, representing the loss of births in the period 1915-1919 resulting from military mobilization in the war years. This effect of war is observable even among neutrals, and among combatants sometimes even exceeds the effects of military casualties. In the U.S.S.R. the age pyramid reflects the losses of life and deficit of births incident to war, revolution, counter-revolution, and the strains of collectivization and famine in the early 'thirties.

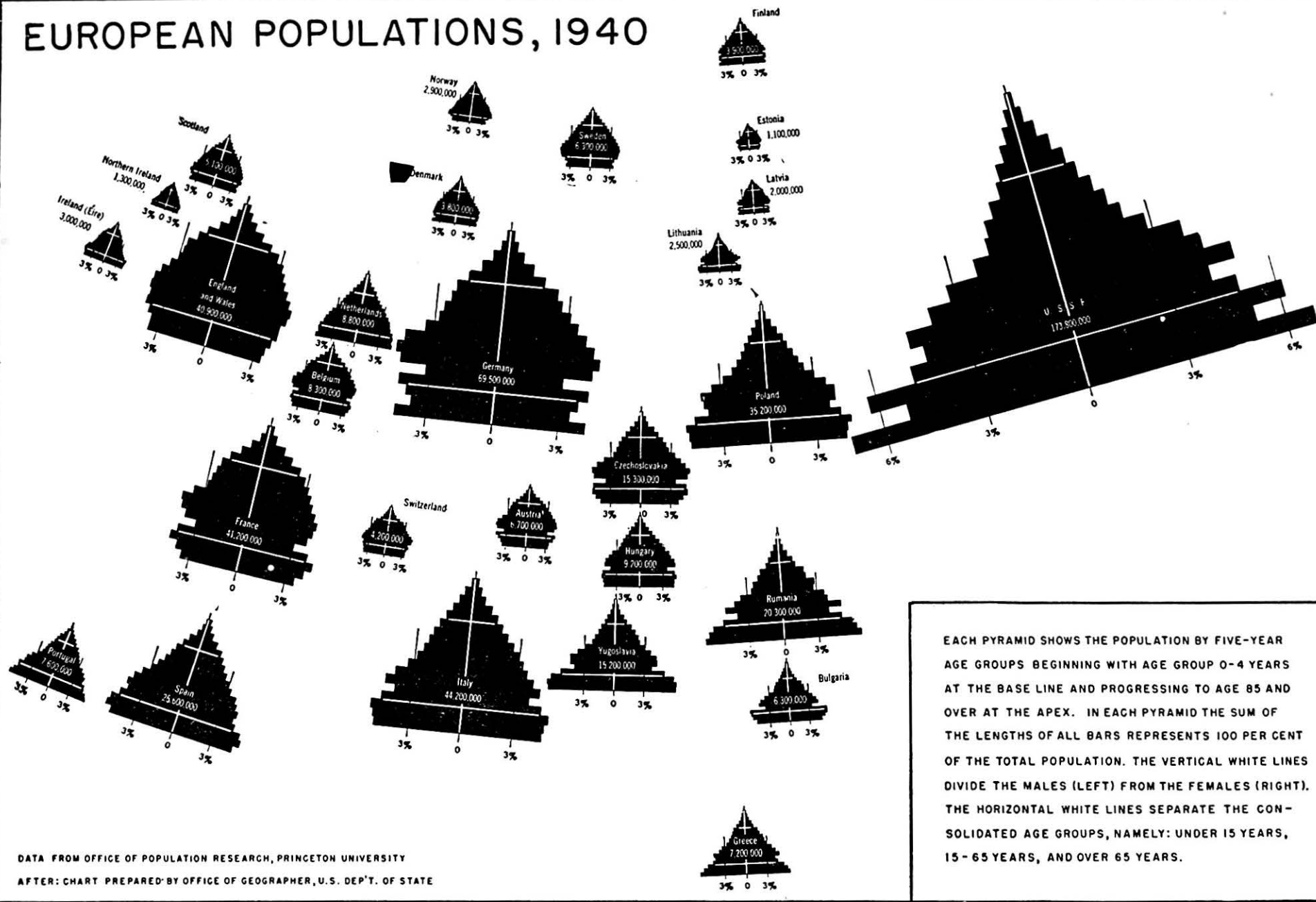
Underlying the more spectacular effects of war and actually of greater importance is the basic shape of the pyramids as determined by vital trends. Three general types may be distinguished, though it should be recognized that since all European countries are on a single continuum of development the types shade into one another. They are (1) pyramids indicative of incipient population decline, (2) those of slowing growth, and (3) those of rapid growth.<sup>4</sup>

(1) *Age composition indicative of incipient population decline.* At their upper ages all European peoples display the effects of rapid population growth in the past, when each succeeding cohort was larger than its predecessor. But in the countries of Northwestern Europe the declining birth rate has resulted in the erosion of the base of the pyramid. Though the trends have been somewhat confused by the effects of war and of economic recovery in the late 'thirties each of the succeeding cohorts born since the turn of the century has tended to be smaller than its predecessor. The progressive decline is perhaps best shown in England and Wales, where the effects of the last war were less severe than among the belligerents on the continent. In Germany the birth deficits of the First World War are very marked, and there

<sup>4</sup> The different types of age structure and certain of their political and economic implications have been discussed at further length by the author and his colleagues in Notestein et al., *The Future Population of Europe and the Soviet Union* (Geneva: League of Nations, 1944), Chapters IV-VII inclusive.



# EUROPEAN POPULATIONS, 1940



DATA FROM OFFICE OF POPULATION RESEARCH, PRINCETON UNIVERSITY  
 AFTER: CHART PREPARED BY OFFICE OF GEOGRAPHER, U.S. DEPT. OF STATE

EUROPE'S POPULATION IN THE INTERWAR YEARS

FIGURE 16. Age and sex composition of the population of European countries, 1940.

## THE BALANCE OF BIRTHS AND DEATHS

were extremely rapid declines in the birth rate after the war. These trends were to some extent reversed by the results of Nazi population policies, indicated by the larger number of children in the youngest age category at the base of the pyramid. Despite having been much longer exposed to the risks of death, in a number of countries the cohorts up to age 40 were larger than those at the base of the pyramid. In Northwestern and Central Europe only the Netherlands displayed an expanding base at the outbreak of World War II.

The shrinkage of the young cohorts, combined with the effects of rapid growth in the past, has left these countries with a concentration of population in the younger and middle adult ages, the survivors of the large cohorts born a generation ago. Old people are relatively scarce, partly because they are the remnants of smaller birth contingents and partly because they were decimated by the higher mortality prevalent in their younger days.

Much of the future can be read from the prewar age composition of the countries of Northwestern and Central Europe. It may be safely predicted that the proportion of the aged in such countries will inevitably rise as the persons now in the middle adult ages move into upper ages. The problem of old age dependency will inevitably increase. The labor force will inevitably become older as the largest cohorts pass into upper middle life and are replaced by smaller cohorts in the young adult ages. Military classes will become progressively smaller. Finally, it is obvious that unless the decline of births is checked the population will inevitably decline in size. The reversal of these trends will become increasingly difficult as the stock of potential parents in the young ages is depleted by aging and by the effects of the Second World War. These stocks can be replaced only by immigration: a rise in the birth rate can begin to affect the age composition of the labor force, military cohorts, and the supply of potential parents only after a span of fifteen to twenty years. Population decline can be averted only by an increase in average family size or, temporarily, through immigration. This long-range picture as outlined by prewar age compositions has been modified in detail but not in basic form by the events of the Second World War.

(2) *Age structures characteristic of slowing growth.* The age pyramids of Southern and Eastern Europe display a less advanced stage of vital transition than that observed in the first type of incipient population decline. The upper ages show the sharp peaks indicative of extremely high mortality in the past. The population rests solidly on a broad foundation in the younger ages. However, in the more advanced countries of this group, as for instance Italy and Poland, the effects of the declining birth rate are readily observable. At the outbreak of World War II, the age structures of these countries seemed destined to develop as they had previously in Western countries.

Nevertheless, the populations of Southern and Eastern Europe still present a shape favorable to growth in the immediate future. Regardless of fertility trends the number of potential parents will rapidly increase in the coming years. There will be a young and growing labor force, with relatively few aged. Consequently the age distribution will be one favorable to relatively high birth rates, to low death rates, and to a substantial margin of natural increase.

(3) *Age structures characteristic of rapid growth.* In the Soviet Union and other parts of Eastern Europe, peace-time birth declines have not yet commenced to undercut the base of the population pyramid. The very broad foundations of the population structure in the younger ages predicate a very youthful and rapidly growing population. High death rates have decimated the upper ages; high birth rates have provided a heavy concentration of population at the younger ages. Regardless of what happens to fertility rates in such countries there will almost certainly be a great increase in the labor force and rapidly rising numbers of persons in the most useful economic and military ages. Increasing stocks of potential parents in the young

## EUROPE'S POPULATION IN THE INTERWAR YEARS

ages will tend to counteract the effects of falling fertility. Barring large scale emigration these countries will in all probability have to provide subsistence for a considerably larger population than they now have.

### *Reproduction Rates*

In the preceding discussion attention has been called to the influence of the age composition of the population on crude birth and death rates. A population heavily weighted in the young adult ages has a larger proportion of potential parents and hence a higher birth rate than an older population of equal fertility. On the other hand a young population will have a lower crude death rate than an older population even though the risk of death at each age is the same.

### *The Nature of Gross and Net Reproduction Rates*

Crude birth and death rates fail to take account of differences in the age and sex composition of populations and are therefore not precise measures of fertility and mortality. A more accurate device commonly used for gauging the true level of fertility is the "gross reproduction rate," which measures the extent to which women in the childbearing ages are replacing themselves with girl babies in the absence of mortality between birth and the end of the childbearing period. The crude birth rate relates the annual number of births to 1,000 total population, including males and females of all ages. The gross reproduction rate, on the other hand, relates births (of girls) to the childbearing segment of the population.<sup>5</sup> If in the average experience 1,000 women in their childbearing years bear 1,000 daughters, the gross reproduction rate is stated to be 1.00, indicating that in the absence of deaths between birth and the end of the childbearing period the female population is just replacing itself. A lower rate indicates that the population is not replacing itself; if such rates continue the population will inevitably decline, regardless of present rates of natural increase or future declines in mortality.

It is obvious that even a gross reproduction rate of 1.00 or somewhat above does not necessarily indicate that the population is replacing itself, since some of the girls born will inevitably die prior to reaching their mothers' ages. When the gross reproduction rates are reduced to take account of average mortality experience of females between birth and the childbearing years, the resultant index is termed the "net reproduction rate," which measures the rate at which the population would ultimately grow with the continuation of present schedules of fertility and mortality (ignoring migration). In other terms it is the ratio of successive female generations. Thus a net reproduction rate of 2.00 indicates that at current fertility and mortality the population would double in each female generation. A rate of 1.00 would ultimately yield a stationary population; a rate of .50 indicates a decline of 50 per cent per generation.

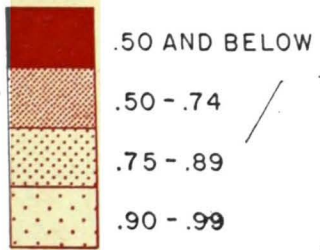
### *Fertility Differentials in the Middle of the Interwar Period*

The gross and net reproduction rates in the middle of the interwar period as computed in some 600 European areas, are shown in Figures 17 and 18, and in Appendix II. In all European countries the reproduction rates indicate a lower rate of replacement than that suggested by the current rates of natural increase. In only a few areas, notably in France, was there

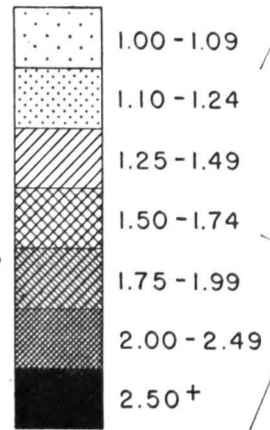
<sup>5</sup> Technically the gross reproduction rate is the sum of female age-specific fertility rates to women in the childbearing period. For practical purposes this includes the ages from 15 through 49. Specific rates are computed for each age of mother by dividing the female births to women of each age by the total number of women at that age. Thus if females aged 20 number 1,000 and 35 girls are born to women of this age in the year under consideration, the female age-specific fertility rate for age 20 would be 35 per thousand. The sum of such rates for all ages in the childbearing period measures the extent to which women in those ages are replacing themselves in the absence of deaths from birth to age 50.

# GROSS REPRODUCTION RATES, ABOUT 1930

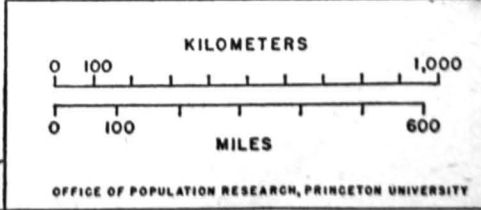
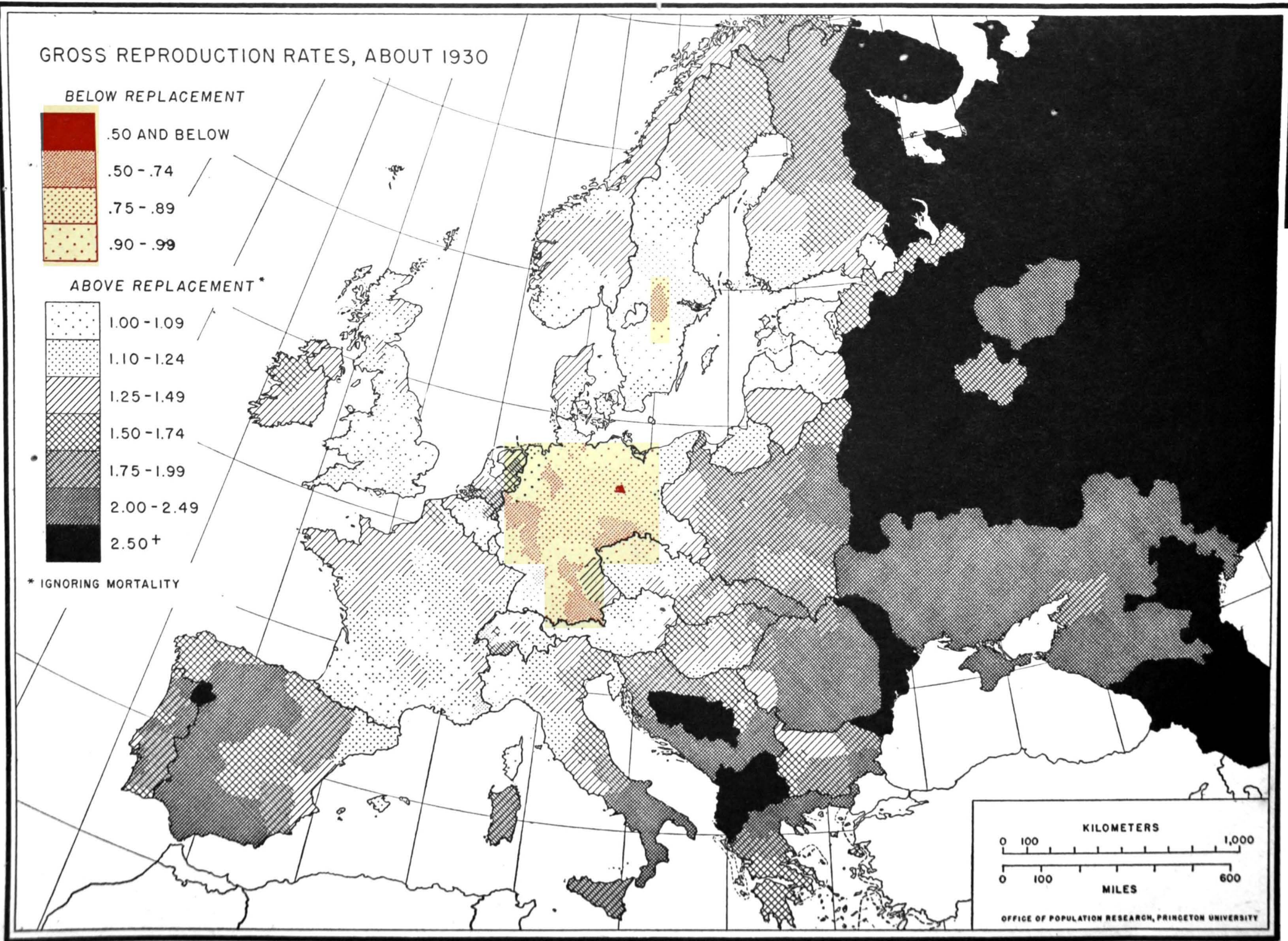
## BELOW REPLACEMENT

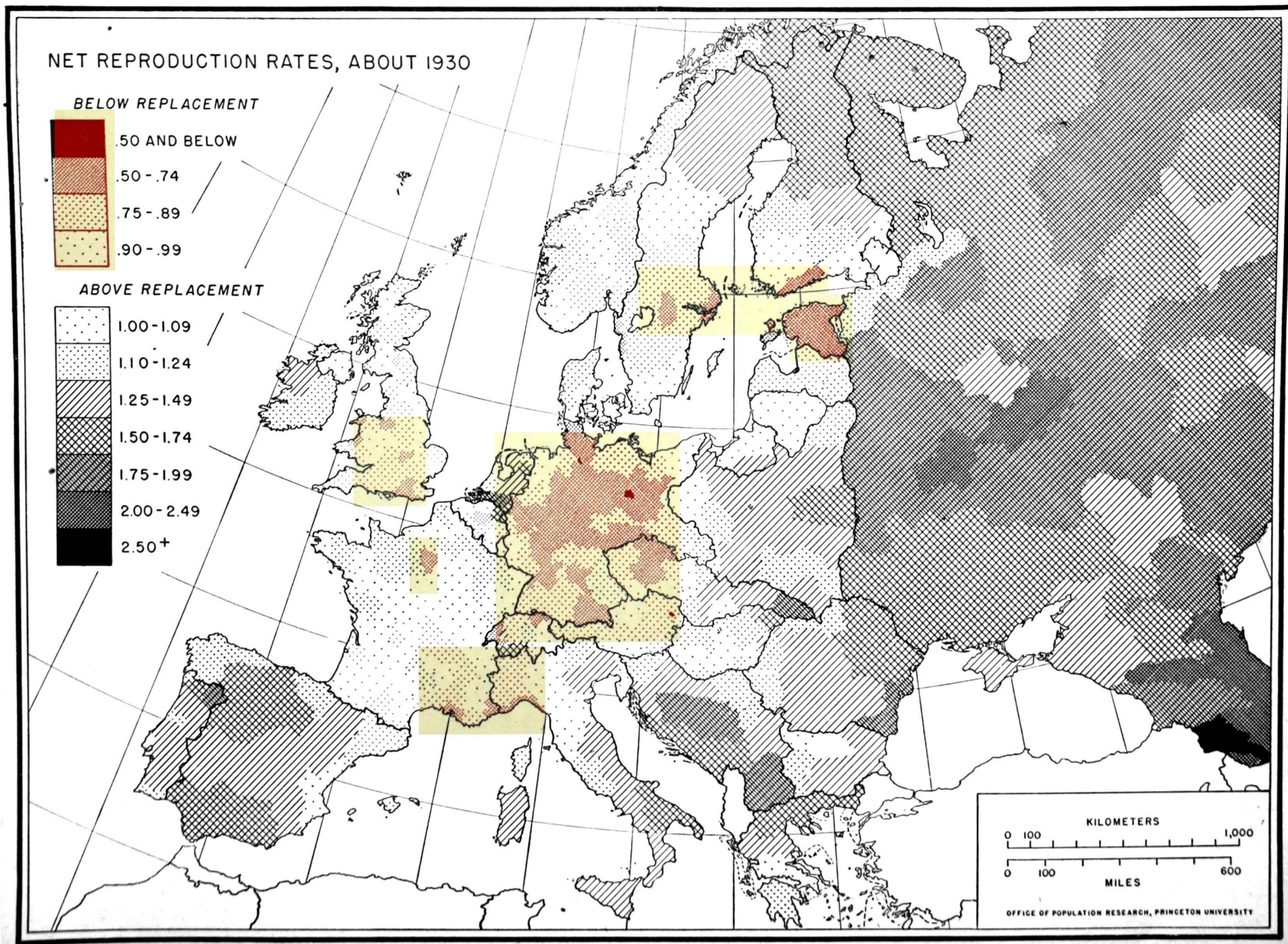


## ABOVE REPLACEMENT\*



\* IGNORING MORTALITY





**FIGURE 18. Net reproduction rates in Europe, by minor divisions, about 1930.**

## THE BALANCE OF BIRTHS AND DEATHS

a substantial excess of deaths over births. Nevertheless, at the middle of the interwar period a sizable section of Europe was not then replacing itself, and in large areas still having a considerable rate of natural increase, the true growth in terms of generation replacement was actually rather small. Obviously the favorable age distributions arising from rapid growth in the past have masked very significant changes in the vital position of the European population.

The populations of no less than 13 European countries were not replacing themselves in the middle of the interwar period.<sup>6</sup> As may be observed in Table 7, this list included the leading countries of Europe as regards material progress. In six of these countries (Norway, Belgium, France, Czechoslovakia, Denmark, and Scotland) the deficit was still less than 12 per cent per generation. In four more (Switzerland, Latvia, England and Wales, and Sweden) the deficit ranged from 12 to 25 per cent; and in the remaining three (Estonia, Germany, and Austria) the recorded reproduction rates represented a decline of 25 per cent or more per generation.

In about half (6) of the countries failing of population replacement in the middle of the interwar period, gross reproduction rates were still above unity. But in the remainder the populations were not replacing themselves even in the absence of any deaths between birth and the end of the childbearing period. In these countries the populations could ultimately perpetuate themselves only through an increase in fertility.

The countries still having reproduction rates above the replacement level in the middle of the interwar period were predominantly rural and agrarian.<sup>7</sup> In many of these countries death rates were high, so that the gap between gross and net rates was very large. Further declines in fertility in these countries could be cushioned by readily predictable progress in reducing mortality, whereas in countries of lower fertility the possible quantitative gains from further reductions in mortality were comparatively small.<sup>8</sup>

Within the smaller geographical areas the range of difference in reproductivity is enormous and of somewhat shocking implications. In the middle of the interwar period the net reproduction rate of Vienna was .25, indicating that with the continuation of the existing rates of fertility and mortality the population of that city would be represented in the next generation by only one-fourth its present numbers. On the other hand, the populations of the Vardar in Southern Yugoslavia, of the Dobruja in Rumania, of Subcarpathian Russia in Czechoslovakia, and of large areas of the Soviet Union, all had net rates approaching and in some cases exceeding 2.00. Such a rate signifies that the people of these areas would be represented by twice their present numbers in the next generation of Europeans. As compared with the Viennese their representatives in the next generation would be proportionately eight times more numerous than in the present generation.

Vienna represents the extreme case, but other large cities, especially in Northern Europe, had very low reproduction ratios. Thus the ratio stood at .37 in Berlin, at .48 in Hamburg, .61 in Copenhagen, .36 in Oslo, .40 in Stockholm, and .47 in Riga. The rates were somewhat higher in London and Paris (.68 in London County and .63 in Paris), but were surprisingly low in capitals of countries with higher general fertility than England and France. Thus net reproduction was far below replacement in Prague, Budapest, Belgrade, and Warsaw. Even in the

<sup>6</sup> The middle of the interwar period having been selected for analysis owing to the possibility of achieving comparable data for all European countries at one time.

<sup>7</sup> The Netherlands being an outstanding exception. The Dutch not only have a high gross reproduction rate for an industrial and urban country, but because of low mortality also have a much higher ratio of net to gross reproduction rates than other countries of comparable gross rates.

<sup>8</sup> Furthermore the apparent differentials evident in Table 7 are conservative. In the computations no correction was made for omissions in the data. In Eastern Europe the official data almost certainly understate the true number of births and deaths, and especially of the former. Correction for under-registration would widen the gap between countries of low and those of high fertility.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

TABLE 7

 European Gross and Net Reproduction Rates in the Middle  
and at the End of the Interwar Period

Country	Middle of the Interwar Period <sup>1</sup>		1939 <sup>2</sup>		Change <sup>2</sup>		
	Dates	Net Re- production Rate	Gross Re- production Rate	Net Re- production Rate	Gross Re- production Rate	Net Re- production Rate	Gross Re- production Rate
<b>I Countries Below Replacement</b>							
Austria	'33-34	.66	.80	I.*	—	++	.
Germany	'33	.70	.80	.98	—	++	.
Estonia	'33-35	.73	.90	.79 <sup>3</sup>	.98 <sup>3</sup>	+	+.08
Sweden	'30-31	.77	.88	.81	.91	+	+.03
Eng. & Wales	'30-32	.81	.93	.81 <sup>3</sup>	.90 <sup>3</sup>	—	—0.03
Latvia	'34-35	.82	.99	.99	1.18	++	+.19
Switzerland	'30-31	.86	.97	.79	.88	—	—0.09
Norway	'30-31	.89	1.04	.86	.93	—	—0.11
Belgium	'30-31	.91	1.09	.86	1.03	—	—0.06
France	'30-32	.93	1.10	.90	—	—	—
Czechoslovakia	'30-31	.95	1.22	—	—	—	—
Denmark	'30-31	.96	1.10	.92	1.04	—	—0.06
Scotland	'30-32	.98	1.17	—	—	—	—
<b>II Countries Above Replacement</b>							
Hungary	'30-31	1.01	1.34	I.* <sup>3</sup>	1.21 <sup>3</sup>	—	—0.13
N. Ireland	'31	1.05	1.26	—	—	—	—
Finland	'30-31	1.09	1.34	.96 <sup>3</sup>	1.18 <sup>3</sup>	—	—0.16
Lithuania	'32-33	1.10	1.48	—	—	—	—
Ireland	'35-37	1.19	1.42	—	—	—	—
Bulgaria	'34-35	1.20	1.70	—	—	—	—
Italy	'30-32	1.22	1.59	—	—	—	—
Poland	'31-32	1.25	1.71	—	—	—	—
Greece	'27-29	1.26	1.80	—	—	—	—
Spain	'30-31	1.27	1.76	—	—	—	—
Netherlands	'30-31	1.28	1.43	1.17	1.29	—	—0.14
Portugal	'30-31	1.33	1.87	—	—	—	—
Rumania	'30-31	1.40	2.16	—	—	—	—
Yugoslavia	'30-32	1.45	2.09	—	—	—	—
U.S.S.R.	'26-27	1.72	2.64	1.54	2.19	—	—0.45

\* Provisional.

<sup>1</sup> Usually dates centered on censuses taken about 1930.

<sup>2</sup> Gross and net reproduction rates for 1939 are only approximate. The gross rates were usually of necessity computed from estimated (rather than census) age distributions, and the net rates have additional inaccuracies arising from the use of life tables that were not strictly applicable to 1939 experience. Owing to the double source of inaccuracy in net rates, changes in these rates are indicated only by (++) , indicating large increase; (+) , small increase; and (—) , decrease.

<sup>3</sup> 1938 rates.

Soviet Union the populations of Moscow and Leningrad were not replacing themselves. Urban fertility was generally low in Europe and the larger the size of the city considered, the lesser were the absolute differences between the several countries and regions.

*Factors in European Fertility Differentials*

There is no simple explanation of geographical differences in fertility, though it is evident that low reproduction rates are associated with urban and industrial civilization, high fertility with the perseverance of the older traditional agrarian manner of life. The small family pattern is characteristically associated with superior education, better living conditions, and the urban social environment. The most highly developed areas, and especially the cities, are generally not replacing themselves. The most isolated and in many respects the poorest populations have the highest present and potential rates of growth. Fertility was lowest in the countries of Northwestern and Central Europe that have played a leading role in contemporary civilization and progressively higher with increasing geographical and social distance from the urban heart of Europe.

The degree of urbanization thus plays an important part in determining differential natural growth. But it is certainly not the exclusive determinant. Relatively rural countries of Northern Europe are among those with the lowest reproduction rates. On the other hand, the Netherlands, which is among the most urbanized countries of Europe, continued to have a substantial, though declining, true rate of population growth in the interwar period.

Superimposed on the influence of urbanization are those of numerous other cultural factors. In Northern Europe, for example, low fertility is certainly as much related to the high standards of education and of living prevailing in these countries as with urbanization in any quantitative sense. Thus, in Europe as a whole, literate populations usually have small families, the illiterate, large families.

Furthermore, religion has apparently played a prominent role. Perhaps partly owing to the absence of ecclesiastical injunctions against birth control in their respective faiths, Protestants and Jews usually have lower fertility than Roman Catholics. All countries in which Protestants form a majority of the population were not replacing themselves in the latter half of the interwar period. In the Netherlands, where Protestants form a plurality, the predominantly Catholic provinces of Limburg and North Brabant had substantially higher fertility than the more Protestant areas north of the Rhine, though both had high rates for Western Europe. In other countries with large elements of both Catholics and Protestants the latter generally have smaller families. Thus the Protestant cantons of German Switzerland (as, for instance, Zürich and environs, Basel, Bern, etc.) had significantly lower fertility than the predominantly Catholic cantons surrounding the Lake of Lucerne. In French Switzerland the diversity is even greater. The lowest reproduction ratios in Switzerland are to be found in the predominantly Protestant cantons of Geneva, Vaud, and Neuchatel, the highest in the French Catholic cantons of Fribourg and Valais.

In Germany outside of East Prussia the highest fertility was to be found in Catholic Upper Silesia and Lower Bavaria, the lowest in Protestant Saxony and Berlin. In the country as a whole the fertility of Catholics has for many years been notably higher than that of Protestants. Where very detailed comparison between the size of family in Protestant and Catholic areas is possible (as in the 1933 census) it may be observed that differences in size of family very closely parallel differences in religious adherence even in the smallest political divisions. Likewise in Latvia and in Slovakia, Protestants have smaller families than their Catholic neighbors.

Nevertheless, it would be easy to exaggerate the importance and ultimate significance of



fertility differentials between Catholics and Protestants. In Germany, for instance, religious differences in family size were narrowing in the interwar period. Prior to the Nazi seizure of power in 1933 the net reproduction ratios of almost all areas, Catholic and Protestant alike, had fallen below the level of replacement. Only in the districts adjoining Poland and in a section of Bavaria was there still any significant margin of true growth, despite the continuation of natural increase. The Nazi population policies effectively raised fertility in most regions up to the outbreak of war, but never succeeded in pulling the average of the country above the level required for permanent replacement. An important feature of the rise is that it tended further to level off fertility differentials of economic classes and religious groups, since Nazi measures were most successful where the birth rate was lowest, least successful where it was high.

The complexity of factors is illustrated by the fact that despite the existence of some religious inhibitions wholly Catholic countries have not remained immune to fertility declines. Where secular influences have been strong, as in France and Austria, Catholic countries have displayed very low reproductivity. It is probably not accidental that Vienna, for so many years recognized as the center of medical research, should have the lowest birth rate in the world. France, as the initial center of low fertility in Europe, is naturally among those of low fertility today.

In Eastern Europe Roman Catholics generally have lower reproduction ratios than adherents of the Eastern Christian churches. The higher fertility areas of Eastern Poland were overwhelmingly of Orthodox faith, while the Western sections are predominantly Roman Catholic. In Czechoslovakia the Orthodox population of Subcarpathian Russia had an extremely high reproduction ratio while Catholic Bohemia is among the low fertility areas of Europe. Lower fertility ratios in parts of Rumania and Yugoslavia formerly in Austria-Hungary reflect the presence of large Catholic and Protestant elements in these territories.

But in Eastern Europe, even more than Western Europe, it is apparent that religious differences alone do not account for fertility differentials. In the East religious affiliation is customarily associated with other ethnic characteristics and with traditional cultural connections, which are as important as religion in determining growth patterns. The Catholics and Protestants of Rumania, for example, are almost entirely of German or Hungarian speech and have strong traditional ties linking them to the West. These groups, and particularly the Germans as relatively recent settlers, have been much more influenced than their neighbors by social and cultural changes occurring in Western Europe. At the same time they have served as centers of diffusion for new ideas in the Eastern regions. Consequently the regions in which they dwell generally show different economic and social characteristics from those with purely Eastern European populations. These influences have been re-enforced by the fact of historical and political association in which these essentially alien elements were formerly dominant.

Though ethnic difference has tended to check the spread of the low fertility pattern to the East, it has not been an impenetrable barrier. Sheer proximity and closeness of historical association have often overridden ethnic diversity. The Czechs of Bohemia have fertility patterns closely resembling those of Germany and Austria. Despite cultural antipathies the vital transition in Poland began in areas under German influence and has spread eastward. Austrian influence is clear in the relatively low fertility in Slovenia and in the former Venezia Giulia (Trieste) compartment of Italy. French influence in the Mediterranean littoral is evident in Catalonia and in Northern Italy.

Such influences are facilitated by ready means of communications. The Baltic has obviously served as a conductor of low fertility patterns. The influence of the Mediterranean is observable in Spain and in Greece. Of the rivers, the Danube especially has been a bearer of new ideas as

well as of goods. Its influence has been selective, however. Thus, Bulgarians on the south bank of its lower reaches have been far more influenced than Rumanians on the north bank.

The general picture in the middle of the interwar period was one of transition. The small family pattern and resultant lower rates of population growth, already firmly established in Western Europe, were in process of spreading across the continent through the usual channels of cultural diffusion. Low fertility is one element in the nexus of cultural traits that comprise material progress. It was moving across Europe in the company of industrial and urban development, with educational advances, and with better living conditions. This diffusion was facilitated by geographical proximity and common language, common traditions, and common religion. It was hindered by geographical barriers and by ethnic differences.

#### *Developments During the 'Thirties*

The preceding discussion relates to reproduction rates at the middle of the interwar period, a time chosen for analysis because it was possible to obtain reasonably comparable information for this period in all European countries. This procedure resulted in the use of dates at which fertility was abnormally low in some cases as the result of economic depression. The figures for Germany in 1933, for example, were undoubtedly below those that would have prevailed in a period of economic prosperity. The further progress of demographic evolution in the 'thirties is illustrated by the data relating to 1939 in Table 7 above. Unfortunately these data are almost wholly confined to countries of low reproductivity, which are, at the same time, those of good statistical records.

Of the fifteen countries for which 1939 reproduction rates were available, five experienced an increase in fertility over the earlier rates. In the others, previous declines were continued, though in England and Wales and perhaps in Hungary the reductions in mortality were sufficient to balance declines in fertility, thus holding the net reproduction rate constant. The outstanding gains were in Austria and Germany, the countries of lowest fertility in the middle of the interwar period. In both of these countries rearmament prosperity and a positive population policy resulted in a recovery approximately to the level of replacement. Measurable increases in fertility over the 'thirties were confined to the countries of lowest fertility at the beginning of the period. In the others reproduction rates fluctuated with economic conditions through the decade, but, as before, there was a downward secular trend.

The downward trend was probably most marked among those countries of highest fertility at the beginning of the decade. Thus the fertility rates in the Soviet Union for 1938, though based on fragmentary evidence, indicate a very large drop in fertility from levels prevailing in 1926-1927, though the fall of the net reproduction rate was cushioned by great gains in the reduction of mortality.<sup>9</sup> Fertility rates for most Eastern European countries in 1939 are not available, but trends in the rates of natural increase indicate that fertility rates must have been falling rapidly. Thus, in the five high fertility countries of Eastern Europe listed in Table 8, the average rate of natural increase fell from 14.7 in 1930-1931 to 10.0 in 1939, a decrease of about one-third. Since changes in age composition of the population in these countries were probably not unfavorable to the continuation of high natural increase, this decrease very likely represents a true drop in fertility.

The result of these divergent trends among countries of high and low fertility was a certain

<sup>9</sup> It should be noted that fertility declines in the Soviet Union balance an extremely rapid fall in the birth rate up to 1934, followed by considerable recovery in later years. Cf. Frank Lorimer, *The Population of the Soviet Union: History and Prospects* (Geneva: League of Nations, 1946), Chapter IX.

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TABLE 8

Rates of Natural Increase in Eastern European Countries, 1930-1931 and 1939

Country	1930-1931	1939	Decline
Bulgaria	13.9	8.0	-5.9 <sup>o</sup>
Greece	14.1	10.5	-3.6
Poland	16.0	10.7 (1938)	-5.3
Rumania	14.1	9.7	-4.4
Yugoslavia	15.2	10.9	-4.3
Average of five countries	14.7	10.0	-4.7

levelling of the extreme differentials prevailing at the beginning of the decade.<sup>10</sup> Where reproduction rates were lowest, declines were checked or even reversed. Where they were highest, there was a continued rapid fall in fertility except in the Soviet Union. In general, the picture was one of continued diffusion of the small family pattern, modified by fluctuations in economic conditions, and by the effects of population policies in Germany and the Soviet Union.

*Implications of Interwar Vital Trends  
in Terms of Future Population*

*The Future as Outgrowth of the Past*

The population history of Europe has displayed uniformities that have been described as the "vital revolution." In the maps of the preceding section have been depicted various stages in the evolution from a primitive vital situation of equally reckless creation and destruction of human life toward a new balance of low death rates and controlled fertility. There has been a progression of demographic development experienced by all European countries. No country has proved immune, and each country in turn has followed essentially the same sequence of development. Countries differ, not in the fundamental processes at work, but in the time at which these processes first began to operate. There have been many local variations in the speed at which the vital revolution has occurred; but there has been a rather remarkable uniformity in the direction and sequence of vital trends. Few trends have displayed a comparable uniformity.

The orderliness of past development gives cause for belief that the future will witness a continuation of underlying trends. The very consistency in the course of past vital trends suggests that they represent forces of very great inertia that are not likely to be fundamentally reversed overnight. In addition, there are elements of inertia in the age composition of the population and in the social forces producing trends in vital rates that will contribute to their continuation.

An appraisal of the size and characteristics of the population in the next few decades is conditioned and somewhat simplified by the fact that a large part of that future population is already born. Thus all persons who will be 20 years old or more two decades hence are already alive. Estimates of their number may ignore future changes in fertility, which cannot affect the

<sup>10</sup> For countries with data for both periods, the range of gross reproduction rates was .80 to 1.43 in the earlier years, and from .88 to 1.29 in 1939. Net rates ranged from .66 to 1.28 in the earlier years, and from .79 to 1.17 in 1939. The range between high and low was thus reduced for gross rates from .63 to .41 and in net rates from .62 to .38.

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size of this segment of the population. Since peacetime mortality fluctuates within rather narrow limits, quite accurate prediction of future numbers in this segment of the population is normally possible, when dealing with areas unaffected by large migrations. Furthermore, as suggested above, the present and readily predictable major facts in the age composition are an important factor as regards the future number of births and deaths. Thus in Western Europe it is apparent that the age composition of the population twenty years hence will inevitably be less favorable to natural increase than the present one. Almost certain changes in the age composition will tend to raise the number of deaths and lower the number of births regardless of changes in true fertility and in the risk of death. The population of the present will inevitably carry the past into the future.

A more debatable source of inertia in vital trends are those social trends with which they have been associated. Fertility and mortality declines have been closely correlated with social and geographical mobility, with urban living, with education, with freedom from religious inhibitions, with higher income and standards of living—in short, with the nexus of cultural traits often called “progress.” Though the precise connection may sometimes be obscure, the fact of association is inescapable. It is questionable if there is any country in the world that did not, in the interwar period, experience some degree of “progress.” As will be observed in greater detail in Chapter IX below, in every European country the proportion of persons receiving some form of education has been constantly on the increase. The proportion of persons engaged in non-agricultural pursuits has been consistently gaining. In all countries the cities have been growing more rapidly than the rural areas. In all countries there has been some measure of advance in material wealth and in facilities for industrial production. Barring political chaos exceeding that of any recent period in European history, further development in the directions indicated seems almost inevitable. To the extent that these social and economic trends determine trends in fertility and mortality the vital trends of the past may be expected to continue into the future.

The portent of interwar trends for the future is suggested by the maps presented above. The gist of general trends and regional differences is evident from the interwar age pyramids and reproduction rates. In more specific terms, the effects of the continuation of interwar trends on the size and composition of the population have been mathematically executed in what have been termed population “projections.” These projections demonstrate the results that would flow from the orderly development of recent vital trends ignoring war and migration. Therefore they are not estimates of actual future population. The actual population will be affected by war, migration, and such other events as might disturb the orderly unfolding of the past. The actual mechanics and results of such projections as carried out for the period 1940-1970 are described in great detail in a previous work by the author and his colleagues.<sup>11</sup> It will be necessary here merely to summarize the results of this study, referring the reader to the larger work for the detailed methodology and results for each country.

### *Future Growth as Indicated by the Extrapolation of Interwar Vital Trends*

The projection of past vital trends suggests three major conclusions regarding the growth potential of Europe and its constituent regions:

(1) *Europe west of the Soviet Union is approaching the end of population growth.* The population of Europe has been growing for the past 300 years. The modern cycle of growth began rather fitfully in the seventeenth century, gained momentum in the eighteenth, and reached its greatest tempo in the last half of the nineteenth. Today this growth is rapidly fading.

<sup>11</sup> Notestein et al., *op. cit.*, Chapter I and Appendix I.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

The population projections, derived from extrapolation of recent vital trends, forecast the advent of a stationary or declining population within a generation in Europe west of the Soviet Union.

The population of Europe in 1940 (excluding the Soviet Union) amounted to approximately 400 million. If we ignore the effects of war, the implications of past trends, as carried out in the projections, suggest an increase to a maximum of about 420 million, in the early 1960's and then the beginning of decline. If the projections are borne out, Europe would experience a relatively stationary population in the next generation, with a variation of only about 5 per cent between the 1940 population and the 1960-1965 maximum. Between 1940 and 1970 the population would increase only 4.5 per cent, between 1945 and 1970 only 2.2 per cent. By contrast, and despite World War I, the population of Europe outside the interwar territory of the Soviet Union grew 17.7 per cent in the generation between 1910 and 1940. The emergence of a relatively stationary and even declining population in Europe is indicated with the continuation of interwar vital trends.

(2) *There were important regional differences in growth potential reflecting different stages in the vital transition from high to low fertility and mortality.* International differences generally corresponded to these regional variations rather than to differing ethnic characteristics.

a. *Northwestern and Central Europe, an area of incipient population decline.* At the end of the interwar period there remained a deceptive continuation of the margin of births over deaths in this region, but even this was fading and had disappeared in France and in Austria prior to German annexation. In most of the other countries of the region the small balance of natural increase masked an underlying condition in which the populations were generally not replacing themselves. Despite some revivals with improved economic conditions in the late 'thirties, there was still a powerful undercurrent of downward secular trends (excluding for the moment the effects of Nazi population policies and rearmament).<sup>12</sup> Northwestern and Central Europe faced the prospect of a stationary and ultimately declining population with the continuation of interwar trends in fertility and mortality. With extrapolation of past trends, every country in this region (even including the relatively prolific Netherlands) would attain its maximum population within the next twenty-five years.

The population pyramid of this region was one of an aging population, insecurely based on shrinking cohorts of children and youth. Though there was still a heavy concentration in the young adult ages during the interwar period, this concentration meant unavoidable future problems of old age and old age dependency as these large cohorts move into the upper ages. There was the certain prospect of an aging labor force in the next few years, with a greatly increased proportion of workers in upper middle life. Assuming the continuation of interwar trends the labor force would begin to shrink in the not too distant future. While in 1940 there were four persons reaching working age for every three persons of working age dying or reaching the age of retirement, twenty-five years hence the situation would be reversed; there would be only three persons entering the labor force ages for each four departing.

b. *Eastern and Southern Europe, an area of rapid but slowing population growth.* The populations of this region were still young and increasing rapidly. But there were unmistakable evidences of trends in the directions earlier taken by the populations of Northwestern and Central Europe. The age structures and vital rates of this region before the war were not unlike those of England and Germany a generation ago, on the eve of World War I. It was clearly an area of vital transition, a transition, if anything, occurring more rapidly in Eastern Europe than it had previously in the West.

<sup>12</sup> See above, p. 59.

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The normal progress of the vital revolution in this area promised some relief from the continued pressure of population on the land and on the limited employment opportunities in the area. The region will have a rapidly expanding labor force for a decade or so, but past fertility declines promise a reduction in the ratio of persons entering the labor force to those leaving it. Continuation of the vital transition would at one time relieve the area of its present large burden of child dependency and on the other create a population structured for maximum economic productivity in its concentration in the young adult ages. But beyond lay the probability of passing into a situation similar to that of Northwestern Europe.

c. *The Soviet Union, an area still in the phase of rapid population growth.* On the projection of interwar trends, every country of Northwestern and Central Europe reaches its maximum population within the next 25 years. Contrariwise nearly all countries of Southern and Eastern Europe are still growing in 1970 on the projections, though at a much reduced pace. In the Soviet Union not only is large growth a reasonable, almost inevitable, future expectation; the extrapolation of interwar trends does not necessarily predicate a slackening of growth in the next generation.

Russia has a long history of tremendous population growth. Unlike other European countries she has had an expanding frontier of settlement through the entire modern period. Despite primitive agricultural techniques and backward cultural development there has been ample room to accommodate large population increase. In the 1938 territory of the Soviet Union the population had reached 112 million in 1900. Despite the population losses of war and revolution the population had risen to 147 million in 1926. Between 1926 and 1939 it grew 23 million more to a figure of 170. Projections of Russian fertility and mortality on the basis of generalized European experience predicate rapid declines from the relatively high levels prevailing in the Soviet Union before the war. Nevertheless, on the projections the population of the U.S.S.R. in its 1938 boundaries rises to 250 million in 1970.<sup>18</sup>

From its interwar experience the Soviet Union carries into the postwar world a youthful population, scarred by catastrophe, but structured for rapid future growth. The number of potential parents will increase rapidly as the expanding cohorts of children born in the interwar period move into adult life. Even with declining fertility patterned on that of Western Europe the inertia of the past would have kept the Russian population firmly grounded on massive cohorts of children and youth.

The rate of increase of the Soviet Union in the interwar period, and the proportionate growth potential of the U.S.S.R. inherited from the interwar years, are not exceptional in European history. Its great importance flows from two facts: (1) while the remainder of Europe is far advanced toward a stationary or declining population, the Soviet Union continues to have the growth potential of an earlier era and (2) with the large size of the Russian population a rate of growth that would not have appeared exceptional a generation ago results in huge quantitative increases. The gain of over 75 million on the projections to 1970 alone amounts to a larger figure than the 1940 population of Germany or that to be expected in the next twenty-five years on any reasonable assumptions regarding German vital trends.

(3) *As the result of regional differences in growth potential a shift in weight of population and manpower from West to East was implicit in the continuation of interwar vital rates and trends.* At the close of interwar period 41 per cent of the total population of Europe and the Soviet Union was domiciled in Northwestern and Central Europe as defined above. This represented some retreat from the position of this area in 1900, when it included about 45 per cent of

<sup>18</sup> I.e., this reflected the growth potential of the Soviet Union before the war and without territorial annexations of 1939 and later.

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the total. Most of this loss had been absorbed in the Soviet Union, whose proportion of the total (in the same area) rose from 27 per cent in 1900 to 30 per cent in 1940. Despite the effects of war and revolution Russia was growing more rapidly in population than the remainder of Europe.

The prospective changes deriving from the projection of interwar trends are shown in Table 9. On these projections Northwestern and Central Europe have a smaller population in

TABLE 9  
European Population Changes, 1940-1970, as Projected for Major Demographic Regions of Europe and Compared with Actual Changes, 1910-1940

Regions	1940		1970		Change			
	Popula- tion <sup>1</sup> (in millions)	Per Cent of Total	Popula- tion <sup>1</sup> (in millions)	Per Cent of Total	1910-1940		1940-1970	
					Amount (in millions)	Per Cent Change	Amount (in millions)	Per Cent Change
Total Population	572	100.0	668	100.0	100	21.4	95	16.6
North-Western & Central	234	40.9	225	33.7	27	13.0	-9	-3.8
Southern & Eastern	165	28.8	192	28.7	33	25.0	27	16.4
U.S.S.R.	174	30.4	251	37.6	40	29.9	77	44.3
Men of Prime Military Age (15-34)	95.5	100.0	103.9	100.0	—	—	8.4	8.8
North-Western & Central	37.4	39.2	30.8	29.6	—	—	-6.6	-17.6
Southern & Eastern	28.0	29.3	29.8	28.7	—	—	1.8	6.4
U.S.S.R.	30.1	31.5	43.3	41.7	—	—	13.2	43.9

<sup>1</sup> Notestein et al., *op. cit.*, p. 56 and Appendix IV.

1970 than in 1940, Southern and Eastern Europe grow at about the same rate as the whole area, and the Soviet Union shows an increase more than twice that of the average. The projections postulate a decline from 41 to 34 per cent in the proportion living in the Northwestern and Central region, an increase from 30 to 38 per cent in those resident in the interwar territory of the Soviet Union. Southern and Eastern Europe would remain a constant proportion of the total. The situation is similar as regards prime military manpower, though owing to changes in age structure the shift in weight of manpower to the East is even sharper than in the total population.

It is evident that interwar fertility differentials and the direction of demographic changes occurring in Europe portended a strong eastward drift in the demographic potential of Europe. Given the extrapolation of interwar trends, the Soviet Union would have a substantially larger total population in 1970 than could be expected in all of the countries of Northwestern and Central Europe combined. On the projections, and in its 1938 boundaries, the U.S.S.R. by 1970 acquires as large a source of primary military manpower as Germany, the United Kingdom, Italy, France, Poland, Spain, and Rumania combined, these being the seven countries with largest military manpower after the Soviet Union. To the extent that demographic factors

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play a part in economic and military power, the vital trends of the interwar period postulated a great migration of power to the East.

### *War and Future Population Trends*

The demographic heritage of interwar vital trends have, of course, been modified by the effects of war, perhaps by changing social trends and positive population policies, and to some extent by migration. The projections from interwar experience discussed above are not estimates of future population because they do not attempt to take account of these factors. They rather constitute a "normal" expectation from which deviation will be caused by extraordinary events and changing social trends. Obviously war has already modified the orderly unfolding of prewar trends.

War may affect the utility of the projections in three ways: (1) the entities to which the projections refer may be dissolved beyond recognition, (2) war losses and war migrations may be so great that future populations will have little continuity in size and structure with those of the past, and (3) the underlying social forces producing demographic changes may be entirely changed by the shock of war and reconstruction.

Territorial changes are occurring. However, these will not in themselves affect the pattern of changes indicated. If prewar trends continue there will still be a pattern of slowing growth, the Western countries leading the trend and the Eastern countries following a generation or so behind. There will still be changing age structures characteristic of the several stages of modern demographic evolution. Regardless of how boundaries are drawn regional differences in growth potential will persist. These changes will alter the size of the populations affected but will not of themselves change the course of vital trends.

It is often assumed that war, and especially modern war, is so destructive of life that no safe predictions may be made regarding future population trends. Certainly war has resulted in staggering losses of life. There are, first of all, the casualties on the battlefields. Then there are the less heroic but often more numerous military victims of diseases and epidemics. There are the excess civilian deaths arising from disorganization of the public health services, from war shortages of food and shelter, from the strain of the war effort, and finally from actual military operations. Civilian deaths from bombing are just as real a source of war loss as strictly military casualties. Finally, from the demographic point of view, loss of births attendant on mobilization may be quite as important as the loss of persons already born. In the First World War the loss of births was quantitatively as important as the loss of lives.

### *Costs of the First World War*

World War I cost Europe west of Russia a total loss of some 22 million people, or seven per cent of the prewar population. Military losses totalled perhaps 6½ million, excess civilian deaths and birth deficits some 15½ million.<sup>14</sup> Total population deficits ranged from over 5 million each in Germany and Austria-Hungary to very small losses in the neutral countries. Among all belligerents except the United Kingdom birth deficits exceeded military casualties and except in that country only a small fraction of these losses were balanced by temporary postwar booms in births. In Western countries the ratios of military to civilian losses were high, reflecting the relatively good control of epidemics in these countries. In the East, and especially in the Balkans, germs were quite as deadly as bullets. This is also reflected in the higher ratios of military deaths attributable to disease in these countries. In the Western armies only 10-15 per cent of the deaths were caused by disease. The proportion was about one-fourth in the

<sup>14</sup> The methods of estimate and the detailed figures by countries are given in Notestein et al., *op. cit.*, Chapter III.



armies of Austria-Hungary, one-third in the Italian army, and probably one-half or more in the Balkan forces.

The losses of Russia in World War I are extremely difficult to assess. The statistics of the war and revolutionary period are hopelessly defective. Lorimer by ingenious and somewhat heroic methods has estimated the total loss of Russian population incident to war and revolution at 28 million, 2 million being attributable to the flight of White Russians, 10 million to birth deficits, and 16 million to military and civilian deaths. He estimates that one-third of these losses occurred during the war, two-thirds in the revolutionary period.<sup>15</sup>

Huge and distressing as war losses appear from a humanitarian point of view, it should nevertheless be recognized that their numerical importance relative to basic vital forces can easily be exaggerated. In Europe (including Czarist Russia) the population in 1920 was about the same as at the outbreak of the war; in other words, it had eliminated the volume of natural increase that normally might have been expected in the war period. Except in the two or three countries hardest hit by the conflict prewar population size was regained within a very few years after the peace.

Prewar vital trends were sharply interrupted by World War I. In every country, including the neutrals, the birth rate declined in the war years. The most active belligerents experienced a very abrupt drop following full mobilization, and in some cases birth rates fell to less than half their prewar levels. After the war there followed a brief upswing of births above prewar levels, but in most belligerent countries this upswing failed to offset more than a small part of the war deficits. Within two or three years after the war almost all countries, belligerent and neutral alike, had settled back into prewar trends. An interpolation of pre- and postwar trends neatly bridges the war period in most instances.<sup>16</sup> The war temporarily disturbed, but did not fundamentally change, birth rate trends.

Similarly the war temporarily provoked a great increase in death rates. But there is no evidence that the First World War seriously biased the underlying trends of falling mortality or seriously modified the curves describing their declines.

The continuity of growth patterns was shown in Figures 5-8 above. It may be readily observed that regional differences effectively survived the war. Striking evidence of this is the fact that the Soviet Union, despite its deficit of 28 million people, grew more rapidly between 1900 and 1940 than Northwestern and Central Europe in which losses were less than half as severe.

### *The Second World War*

An appraisal of the full demographic effects of the Second World War is obviously handicapped both by the scarcity of reliable information and by unknown developments incident to the final peace and postwar settlement. Nevertheless the general outlines of the war's influence are now apparent.

Military casualties to Western European belligerents in the Second World War were less, considering the scale of operations, than they were in the previous conflict. The initial German victories were attained with comparatively small military loss of life both to conqueror and conquered. The military losses to Western European belligerents in the subsequent invasion of the continent and the defeat of Germany were small relatively to the casualties suffered in the trench warfare of 1914-1918. Thus the military casualties of France in this war were only a small fraction of the 1,320,000 military deaths experienced in the last.<sup>17</sup> British losses

<sup>15</sup> Frank Lorimer, *op. cit.*, p. 41.

<sup>16</sup> Cf. Notestein et al., *op. cit.*, Chapter III.

<sup>17</sup> French military deaths in World War II are reported to have been 150,000. *Journal de la Société de Statistique de Paris* 86(9-10) : 223. Sept.-Oct., 1945.

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in European and North African campaigns were only about a third of the 744,000 killed in World War I.<sup>18</sup> The Italian forces certainly lost far fewer than the 700,000 soldiers estimated to have died in the last war. Only in Germany were military deaths on the scale of those suffered in the earlier struggle,<sup>19</sup> and these chiefly resulted from the bloody fighting on the Eastern Front.

The Eastern campaigns were certainly much more costly to the conflicting armies than those of the West. The extent of these losses is not yet clear. In all probability German military deaths equalled those of the First World War, even in relation to the larger population of Hitler's Reich in 1939 as compared with the Imperial Germany of 1914. Responsible estimates of German military dead range from 2,500,000 to 3,250,000. The great majority of these, perhaps as much as five-sixths, occurred on the Eastern Front.<sup>20</sup> Russian losses appear to have been very large, probably even more than the German. In other Eastern European countries military casualties were heavy, perhaps cumulatively greater than those of the First World War, though the losses were differently distributed among the several peoples.<sup>21</sup>

Owing to the extremely heavy casualties of the Russian and German armies in the Eastern campaigns, the total military deaths of Europe and the Soviet Union may well have exceeded the losses of over eight million suffered in the First World War, the amount of this excess depending on the true losses suffered by the Soviet Union. Operation for operation the military deaths were unquestionably fewer in World War II. Great progress was achieved in reducing the incidence of disease among the troops, who were formerly extremely vulnerable to disease and epidemic; use of blood plasma and the new drugs, treatment for shock, and advances in surgery undoubtedly sharply reduced the number of deaths from wounds. But these advances were counterbalanced by the greater scale of World War II.

The number of civilian deaths arising from direct military action was undoubtedly greater in the Second World War. Aerial bombardment was very costly of life, especially in Germany where it took approximately 500,000 lives.<sup>22</sup> In addition, certain other factors have created the possibility of greater total civilian casualties in the Second than in the First World War. Thus, far more perished from deliberate policies of extermination. Special groups and, above all, the Jews were singled out for the most ruthless and barbaric persecution of modern times. Again, military operations covered a wider territory than in the last war so that a larger population was exposed to war devastation and the destruction incident to battle.

By contrast, excess civilian deaths arising from general war conditions were probably less than in the last war. As pointed out above, medical knowledge and public health had proceeded

<sup>18</sup> Identified deaths to United Kingdom forces resulting from military action amounted to 245,000. To this should be added an unknown proportion of the 53,000 reported as missing. However, these figures include casualties in the war against Japan (apparently about 12 per cent of the total) and some deaths to personnel from overseas (e.g., from Rhodesia and Newfoundland) serving in the United Kingdom forces. Cf. *League of Nations Monthly Bulletin of Statistics* 27(5): 189. May, 1946, and the British *White Paper* of June 6, 1946.

<sup>19</sup> American casualties were of course much greater than before, but the present survey relates to European countries. Military losses to the Netherlands and Norway were greater in the Second World War owing to their neutral status in the previous conflict, but the strictly military deaths in these countries and in Belgium were small, amounting to only a few thousand in each case.

<sup>20</sup> Official German casualty lists to November 30, 1944 reported 1,911,300 dead, 1,714,054 as missing. Differences in the final estimate revolve around the number of missing properly allocable to deaths, and the unknown number of deaths occurring between November 30, 1944 and the armistice.

<sup>21</sup> Reliable reports for most Eastern European countries are lacking. Those that have appeared, such as that of Poland, give a false sense of accuracy in their detail. The Polish Office of Reparations gives a figure of 597,320 Polish citizens "killed in action." Such a large figure seems plausible only if it includes civilians killed incident to military combat. More plausible data on military casualties is given by the Greek Government Office of Information, which lists 23,700 Greeks killed in the Italian and the German wars. It should be noted that the complete governmental disorganization prevailing in much of Eastern Europe during the war precludes the possibility of obtaining accurate casualty lists, though figures have commonly been published as a basis for reparations demands.

<sup>22</sup> U.S. Strategic Bombing Survey, Medical Branch Report, *The Effect of Bombing on Health and Medical Care in Germany* (Washington: U.S. War Department, 1945), p. 12. The comparable toll in Britain was 60,000 killed.

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to the point that Eastern European countries before the recent war had death rates comparable to those of Western Europe about 1910. Great strides have been made and applied in preventive medicine, so that even in Eastern Europe the epidemics of typhus, of typhoid fever, and of malaria which formerly characterized the area failed to materialize. Though civilian deaths may have equalled those of the last war a larger proportion of such deaths were the result of military action and deliberate extermination, a smaller part owing to depredations of disease.

Birth deficits on the scale of the earlier war did not appear during the second conflict. Several elements in the situation contributed to this phenomenon. Few European countries (to all intents and purposes only Germany and Russia) were for long periods engaged in operations continuously involving a large proportion of their military manpower, though this factor was in some cases counterbalanced by the large number of military prisoners held during (and after) the war. In the years just preceding World War II and in many countries during the war itself, there was a large increase in the number of marriages and consequently of births. This development tended to counterbalance the fall of births that otherwise would have occurred. Also, viewing the effects of the previous war, some countries adopted policies calculated to check the demographic effects of mobilization. Periodic leaves were granted the troops and in Germany, for example, both legitimate and illegitimate children of soldiers were the objects of many special governmental favors in addition to the regular allowances paid on behalf of such children.

The combined effect of these various influences on the civilian population are not always easy to assess. War-time reports of famines, epidemics, and civilian casualties are often untrustworthy and the exaggeration of the individual observer often goes unchallenged because of its news and propagandistic value. Even official vital statistics are much less reliable than in peace-time owing to civil disorder, to the mobility of the population, and to the possibility of misrepresentation for political purposes.

Such official vital statistics as do exist would indicate that the civilian populations did not generally suffer as severe population deficits as in the earlier war. Vital statistics of the civilian population are available for four-fifths of Europe west of the Soviet Union through 1942, and for more than half of the population through 1943.<sup>28</sup> Neither war nor prewar vital statistics are available for the Soviet Union. For the countries with comparable vital statistics from 1939 through 1942 the aggregate drop in natural increase was progressive, but not spectacular. Using 1939 as a standard, the cumulative loss of natural increase in these countries through 1942 was less than a million and a half, a figure smaller than the civilian population deficit in France alone in the four years of the First World War. In those countries for which returns are available for both years, the rate of natural increase was higher in 1943 than in 1942. Though less information is available for the years 1944 and 1945, the general situation was undoubtedly worse.

The picture outlined by the available vital statistics is unquestionably too favorable. There are significant elements of bias in the data. Thus they commonly do not include deaths of Jewish and other deportees, of slave labor, and of political prisoners. They omit the bombing victims in some countries and especially in Germany. In the countries hardest hit by the campaigns of 1944 and 1945 the vital statistics are in default. Furthermore, reliable data are generally lacking for those countries that suffered most, such as Greece, Poland, and Yugoslavia. The First World War caused a civilian population deficit of over 15 million in Europe west of Russia. It is likely that even this huge figure was exceeded in the recent conflict.

Full appraisal of the demographic effects of the recent war are not yet possible in the absence

<sup>28</sup> Cf. League of Nations, *Statistical Year-Book*, annual issues.

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of postwar censuses, and are beyond the scope of this survey of the implications of interwar population trends. Members of the United Nations have prepared official reports for purposes of reparations claims, but these are often based, of necessity, on inadequate sources of information. In view of the political purposes for which they were prepared and the recency of the suffering experienced by those who have survived, there is a natural tendency to maximize the extent of population loss. This tendency was clearly evidenced in the reports of losses in the First World War that were made shortly after the close of that conflict.

Though final analysis is not possible it may be tentatively stated that the total demographic effects of the recent war were probably as severe as those of World War I.<sup>24</sup> On the other hand, they do not appear to have been of a completely different order of magnitude, especially if consideration is given to the fact that the populations involved had grown substantially since the outbreak of the earlier conflict.

The impact of these losses ranges from negligible amounts in certain neutral countries to the many millions deducted from the populations of Germany, Poland, and the Soviet Union. In some of the neutral countries, and even in certain of those occupied by the Axis powers, it is difficult to ascribe any population loss to the war. In Sweden the demographic outlook has been more favorable than in any recent period, the birth rate and rate of natural increase having regained the levels of the early 'twenties. This recovery in the midst of a period of great world crisis may seem anomalous. It was probably rooted in two influences, one economic and the other social. With full employment and rearmament activity, immediate economic deterrents to marriage and children were generally removed. This was reflected in a great increase in the Swedish marriage rate in the late 'thirties, gains maintained and even further augmented during the war. Secondly, it seems a plausible (though unproved) hypothesis, that restrictions of wartime living imposed and encouraged renewed dependency on the family as the fundamental

<sup>24</sup> Estimated military and civilian population losses for European countries have been summarized by the International Committee for the Study of European Questions in a report on *The Results of the War of 1939-1945 as Regards the Population of Germany and of the Allied Countries of Europe* (1946). These are given as follows:

	<i>Approximate Pre-War Population (000's)</i>	<i>Civilian and Military Losses</i>	
		<i>Number (000's)</i>	<i>Per Cent</i>
U.S.S.R.	193,000	7,000	3.7
France	41,500	820	2.0
Poland	35,400	4,620	13.6
Yugoslavia	16,000	1,680	10.5
Czechoslovakia	15,200	190	1.25
Holland	9,300	204	2.2
Belgium	8,300	125	1.5
Greece	7,150	490	6.8
Norway	3,000	11	—
Denmark	("figures comparatively low because of the small population")		
Total Continental United Nations	Approximately	15,000	
Great Britain	47,000	398	
Total Allied Losses		15,398	
Germany		3,600	

These figures do not include birth deficits during the war, the effects of territorial changes and forced migrations incident to the peace, and the results of postwar conditions. When these factors are considered, the above figures are certainly low except for the Western allies and perhaps for Yugoslavia. If birth deficits are included, the Russian total loss is certainly substantially greater than that given. Current conditions in Germany and the indefinite withholding of German prisoners will greatly increase the German losses.

The total population deficits for Europe will also be increased by the inclusion of losses to the Axis satellites. But the final figure must be compared with the total deficit of over 22 million west of Russia in World War I and with the huge figure of 26 million lost to Russia as the result of that war and the subsequent civil war. Since about a third of the Russian loss may be attributed directly to the First World War, the total European population deficit in that conflict was somewhat over 30 million. Cf. Notestein et al., *op. cit.*, pp. 75-77.

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unit of social existence. Thus the curtailment of travel, of public entertainment, and of social gatherings certainly strengthened home life. It is even possible that strict rationing and the limited number of choices for spending money encouraged childbearing among those who formerly postponed having children in order to maintain a higher standard of living.

Similar influences were obviously at work in most Western European countries, though at first bluish conditions might have seemed extremely unfavorable to the maintenance of peace-time rates of growth. In Switzerland and even in occupied countries such as Denmark and Bohemia-Moravia wartime rates of natural increase were, on the average, higher than before the war. This was true in the Netherlands prior to 1944 and the Allied invasion of the continent. In France and Belgium the years 1940 and 1941 were unfavorable, but by 1943 and 1944 the prewar position had been regained; the net loss of population in France resulting from this war was undoubtedly only a small fraction of that suffered in 1914-1919, though, of course, the loss may be more costly in the present situation in which France had an excess of deaths over births even in the "normal" prewar years.<sup>25</sup> In England the deficits of 1941 and 1942 were more than wiped out by later rates of natural increase exceeding any experienced in that country since the 'twenties.<sup>26</sup>

Thus in Western Europe the United Kingdom, Switzerland, and Scandinavia emerged from the war with, if anything, a more favorable outlook for future population growth than that with which they entered the war period. In the remainder of Western Europe, aside from Germany, the war deficits were being effectively cancelled by the surprisingly high fertility levels now prevailing in these countries.

The growth potential of Germany was naturally much affected by the war. The net loss of population incident to the war and postwar settlement may total more than ten per cent of the prewar population. Though some of this loss is being balanced by the forced migrations of ethnic Germans to the rump Reich, the outlook for future growth in a beaten country so politically and economically disorganized as Germany is certainly unfavorable.

An accurate statement of the war losses of Eastern Europe is not yet possible. In such countries as Poland, Greece, and Yugoslavia they were much more severe than in the West<sup>27</sup> aside from Germany, the losses of the latter country, however, arising as much from the peace as from the war. Russian losses certainly exceeded all others in terms of absolute numbers, and in terms of proportions to the total population were probably among the heaviest.<sup>28</sup> Nevertheless, according to official Russian statements, the population of the Soviet Union of 1946, estimated at 193 million, was roughly that of 1940, before the conflict began. In other words, if this optimistic report is correct war losses were counterbalanced by the natural excess of births over deaths in the war period.

Changes during the war have not changed the fundamental demographic positions of the

<sup>25</sup> The population of France is estimated to have fallen 1.5 million during the war but less than half of this could be properly called "war" loss. Cf. *Journal de la Société de Statistique de Paris* 86(9-10):222. Sept.-Oct. 1945. The French population deficit in World War I amounted to some three millions.

<sup>26</sup> This recovery was certainly not chiefly attributable to the presence of American armies in England as has sometimes been suggested, but to influences similar to those which produced higher birth rates in the Western neutral countries.

<sup>27</sup> The Polish Office of War Reparations estimates the total number of Polish citizens killed at 6,104,990; the Greek Government Office of Information puts the total deaths of Greeks at 415,300 and the total population loss, including birth deficits and deportations, at 930,300. Regardless of the accuracy of these figures it is clear that the populations of these countries suffered untold hardships and decimation in the war. Cf. *Poland Today*, May, 1946, pp. 6 and 9, and Greece, Office of Information (New York), *Facts About Greece*.

<sup>28</sup> The divergence of estimates of Soviet losses may be indicated by comparing the figures given in Note 24 above with the report presented in *Les Cahiers de l'Economie Soviétique* 1(3):31, Jan.-March, 1946, which gives an estimate of 7 million military deaths, 5 million civilians killed, and 5 million dead of malnutrition, cold, and deportation, a total of 17 million lost (not including birth deficits).

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several powers as determined by long-standing historical trends. The growth potential of the Soviet Union has emerged from the war essentially unimpaired, the war losses being balanced by territorial acquisitions. Even with the harsh territorial settlements proposed for Germany, the German nation, if it survives as a political unit, will have much the largest population after that of the Soviet Union, the war losses of Germany proper being to some extent balanced by Germans deported from Czechoslovakia and Eastern Europe. The United Kingdom, France, and Italy will continue roughly equal in population, the greater growth potential of Italy at the outset of the war being to some extent cancelled by heavier war losses and probable territorial cessions. In Eastern Europe heavier war losses are in part balanced by the greater potential resiliency of a young and fertile population.

Viewed in the longer perspective the indirect effects of the war on social attitudes may prove more important to the demographic future of Europe than the actual losses experienced during the conflict. At the present writing birth rates in Western Europe aside from Germany are at the highest levels experienced in twenty years. If these high birth rates reflect fundamental changes in social attitudes the basic demographic position of the Western countries and the pattern of regional differentials may be considerably altered in the coming years.

It is too early to judge the permanence of these high fertility levels, but it is clear that temporary factors are at least partially responsible for the upward trends in birth rates. Thus the greater part of the rise in those countries for which order-of-birth statistics are available has been the result of additional first and second births rather than of increases in the higher orders of parity. In other words, the greater part of the birth rise has been attributable to new marriages rather than to an increase in family size. To the extent that this is true the birth "boom" will be a temporary one. Present birth rates can be maintained indefinitely only with continuing increases in third, fourth, and higher orders of births. Whether these will occur can only be a matter of conjecture.

Unless past vital trends are drastically altered over an extended period of years Europe faces a period of slowing growth followed by the beginning of population decline. There will be large regional differences, marking various stages in the same continuum of demographic development. Every European country will have an older population, with all that implies in terms of a shifting burden of dependency from young to old and of an aging labor force. Western Europe will be relatively old and Eastern Europe relatively young, but both will be moving in the same direction. There will be an eastward drift in the weight of population. In so far as numbers and youth are a factor in political and economic power the importance of the East in European affairs will progressively increase.

Such was the demographic heritage of the past, representing what might be regarded as the "natural" forces underlying future demographic trends. In the past these have been modified by migration (considered below in Chapters V-VIII) and in the final years of the interwar period by active state intervention in efforts to stimulate lagging population growth. That such efforts will be continued and intensified in the postwar world may be regarded as a certainty.

## CHAPTER V

### OVERSEAS MIGRATION

THE demographic history of Europe has been chiefly determined by the normal processes of birth and death. The major source of recruitment has always been births; the major source of depletion has always been deaths. But in smaller areas, and occasionally in the continent as a whole, migration has played a dominant role. The great wanderings of the early Christian era produced revolutionary changes in the character of European civilization and European people. Even during the Middle Ages, with its fixed mode of life and the legal attachment of the peasant to the soil, there were important and shifting tides of migration. This was especially true in the East, where movement was facilitated by the sparse population and the frontier conditions of life and where recurrent invasions from Asia resulted in alternate waves and counterwaves.

More recently migration has been an important element in the two dominant historical developments of the modern world: the expansion of Europe and the economic revolution that made this expansion possible. On the one hand, migration provided the human sinews for the spread and dominance of European civilization overseas. On the other hand, it provided the necessary manpower for the development of industry and commerce in the home continent. Without the rural exodus to city and factory the achievements of modern civilization would have been impossible. It is also true, of course, that European expansion and the industrial revolution provided the means and the motive for the migratory movements. Cause and effect in this, as in most other social phenomena, are interwoven into a pattern of functional relationship.

In modern European history three types of migration are commonly distinguished: (1) overseas migration, (2) international migration within Europe, and (3) internal migration.<sup>1</sup> The first of these chiefly reflects the expansion of Europe; the second, the intermingling of peoples across political boundaries; the third, the almost universal movement from the countryside to the cities within the national boundaries.

In the three following chapters attention will be successively directed to these three facets of human migration. Owing to the nature of the sources the three types cannot always be sharply defined. Thus in considering the international balance of migration, the character of the statistical sources is such that it is not always possible to distinguish clearly the relative importance of overseas as opposed to intra-European migration in that balance. Likewise it is not always possible to differentiate the effects of external migration from those of internal movements in the migration balances of the districts considered within each country. Consequently, the three types cannot always be so sharply distinguished in treatment as they may be in conceptualization. The final chapter on migration is concerned with the net demographic balance arising from all forms of migration, and the relative importance of this balance as an element in population change.

#### *The History of Overseas Migration*

The peopling of other continents by Europeans is the largest and most spectacular migration in human history. Over 60 million Europeans have sought new homes overseas since the

<sup>1</sup> Technically this is not an all-inclusive list. It excludes intercontinental movements involving only land transit, as, for example, within the Soviet Union. The migrations between European and Asiatic territories of the Soviet Union are not treated at length in this volume; they are more fully considered in a companion volume in this series by Frank Lorimer, *The Population of the Soviet Union: History and Prospects* (Geneva: League of Nations, 1946).

first colonization movements of the sixteenth century.<sup>2</sup> Many returned home disappointed. But those who remained and their descendants are a majority in areas that, combined, exceed Europe in size and natural resources. In many other regions European emigrants and their descendants form a solid core of European cultural influence with or without direct political association with European countries.

The stream of overseas migration differed from the mass migrations of earlier times in that it was a movement of individuals, not of tribes or of entire peoples. Furthermore, though there were many cases of forced deportation, the bulk of the overseas migration arose from voluntary choice and not as the result of expulsion. Governments controlled and to some extent directed the movement. Emigration was often facilitated by the official policies of the receiving countries and even occasionally by those of the sending countries. But in the overwhelming proportion of cases migration was unassisted by government. The migrant himself had to bear the costs and the risks of the venture.

In view of its individual nature overseas migration was a response to very widespread attractive and propulsive forces.<sup>3</sup> Obviously it has not been an isolated phenomenon. It has been promoted by dissatisfaction with conditions in Europe. It has been related both to opportunities overseas and to awareness of these opportunities in Europe. Thus push was provided both by the spread of the agricultural revolution and by the parcellation of holdings attendant on rapid population growth in a static economy. Religious and political discrimination pricked many to endure the hardships of exile. The emigration movement was both cause and effect of great improvements in transportation facilities. Letters and personal tales of successful emigrants provided the lure of an attractive alternative to the hardships at home. Perhaps most important of all was the empirical view of life that has motivated the great material achievements of the modern era. The mediaeval man accepted his environment and his position in the social hierarchy and tended to adjust himself to the given conditions. Under the stimulus of both geographical and scientific discovery, modern man has proved more restive in the face of a harsh environment. More often than mediaeval man, he has sought to achieve a balance between wish and fulfillment through modification of the environment rather than of himself. Within Europe this psychology has motivated a great striving for improvements in the material conditions of life, and a corresponding urge to be freed from the restraints of archaic tradition and rigid social stratification. Had this feeling not prevailed, the opportunity to emigrate and colonize might well have been neglected.

Though a certain amount of European emigration has existed since the early days of discovery the mass transoceanic movement is a modern phenomenon. Prior to the nineteenth century the oceanic crossing was both arduous and dangerous. Aside from those who were transported against their will, colonists were confined to those who hoped to gain a handsome fortune overseas or who had very urgent reasons for leaving Europe. The early colonists were almost entirely from countries of the Atlantic seaboard, where communications with overseas countries provided knowledge, stimulated interest, and offered opportunity. The early adven-

<sup>2</sup> A. M. Carr-Saunders, in his book on *World Population* (Oxford: Clarendon Press, 1936), p. 49, gives a compiled figure of 51,696,000 for European overseas emigration between 1846 and 1932, but points out that this is obviously below the fact, owing to the incompleteness of the record in countries of emigration. The reports of immigrating countries indicate that at least ten per cent of the emigrants were omitted in the statistics of the sending countries. If allowance is made for an error of this magnitude and reasonable additions are made to take account of migrations before and after the dates set by Carr-Saunders, the total easily exceeds 60 million. An extended discussion of the volume of overseas migration prior to 1846 is given in an article by Imre Ferenczi on "Migration" in *The Encyclopedia of the Social Sciences*.

<sup>3</sup> The individual motivations involved in overseas migration are interestingly and cogently set forth by Marcus Lee Hansen in his study of *The Atlantic Migration, 1607-1860* (Cambridge: Harvard University Press, 1940), which draws heavily on the opinions and personal accounts given in letters and contemporary periodicals.



turers were Spanish, Portuguese, French, Dutch, and English and the great colonial empires of these nations drew Europeans chiefly from these countries. Prior to the nineteenth century the numbers involved were actually very small and the growth of the European population of the Americas, at least, was as much through natural increase as through immigration. Thus the French-speaking population of Canada, which now numbers over three million, is almost entirely descended from no more than 60 thousand initial immigrants, all of whom came before 1765. Though no adequate record of overseas migration to the United States exists prior to 1820 it is clear that colonial immigration was a thin and irregular stream as compared with the torrents of the late nineteenth and early twentieth centuries. The chief sources of migration were England, Scotland, the Netherlands, and the Rhineland up to Switzerland. There were a handful of Swedes, of Catholic Irish, of Huguenot French, and even a few Italians, but the great majority were English.<sup>4</sup>

### *Mass Migration of the Nineteenth and Twentieth Centuries*

Overseas migration in the nineteenth and twentieth centuries differed from the earlier movements in three significant particulars: (1) as regards the chief motivations inducing migration, (2) in the numbers involved, and (3) in the areas from which migrants were drawn.

Although political and religious persecution were important causes of migration in colonial times, by the early nineteenth century economic motivations were firmly entrenched as the leading factor in migration. It is surprising that as early as 1820 potential migrants were acquainted with the fluctuations of economic opportunity in America and migrated or not according to their information. The tide of migration has risen and fallen with political disturbance and religious oppression, with changes in agriculture and landholding, and with alternative economic opportunities at home, but above all with the fortunes of economic conditions in overseas countries. The course of overseas emigration in the nineteenth and twentieth centuries has been dominated by successive waves increasingly governed by the fluctuation of opportunity in the receiving countries.<sup>5</sup>

Up to the years of the First World War each successive wave reached a higher crest than its predecessor (Figure 19). In the decade 1820-1830 the average annual emigration overseas probably did not exceed 30 thousand. This figure was multiplied by 10 in the early 'fifties, by 20 in the 'eighties, and by 40 in the early years of the present century. There were single years between 1900 and 1914 in which more emigrants left Europe for the United States than had migrated to that country in the entire period from discovery to 1820.<sup>6</sup>

The increasing volume of overseas migration was obviously associated with the great improvements in transportation. It was also connected with the expanding area from which

<sup>4</sup> Cf. Hansen, *op. cit.*, for the best account of the nature of early migrations to America. See also Maurice Davie, *World Immigration* (New York: Macmillan, 1936) for a good general treatment.

<sup>5</sup> The high correlation between European emigration and economic conditions in the United States is thoroughly documented in Harry Jerome, *Migration and the Business Cycle* (New York: National Bureau of Economic Research, 1926). The degree of coincidence of prosperity and immigration in Canada and Australia is examined in William D. Forsyth, *The Myth of the Open Spaces* (Melbourne: Melbourne University Press, 1942), pp. 30-32.

<sup>6</sup> Historical data on European emigration have been assembled in great detail in the volume *International Migrations*, edited by Walter F. Willcox (compiled on behalf of the International Labour Office; New York: National Bureau of Economic Research, 1929), 2 vols. The first volume, *Statistics*, includes an exhaustive compilation of statistics available at the time of publication, with introduction and notes by Imre Ferenczi; the second, *Interpretations*, includes analyses of special migratory movements. Unless otherwise noted, all figures relating to overseas migration up to 1924 in the following paragraphs are drawn or adapted from this source. Materials for dates after 1924 were compiled by the author from official publications of the countries concerned and from the following publications of the International Labour Office: *Migration Movements, 1924-1927* (Studies and Reports, Series O, No. 4; Geneva, 1929); *The Migration of Workers* (Studies and Reports, Series O, No. 5; Geneva, 1936); and the various annual editions of the *Year-Book of Labour Statistics*. It should be emphasized that official statistics of both historical and current migration are of greatly varying accuracy and comparability.

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emigrants were drawn. As knowledge of the practical opportunities in the New World spread from the seaports into the hinterland, the stream of emigration was fed from sources farther and farther afield. As each area in turn was opened up to contact with the New World through developing lines of commerce, it sent forth a rapidly rising wave of migrants which tended to

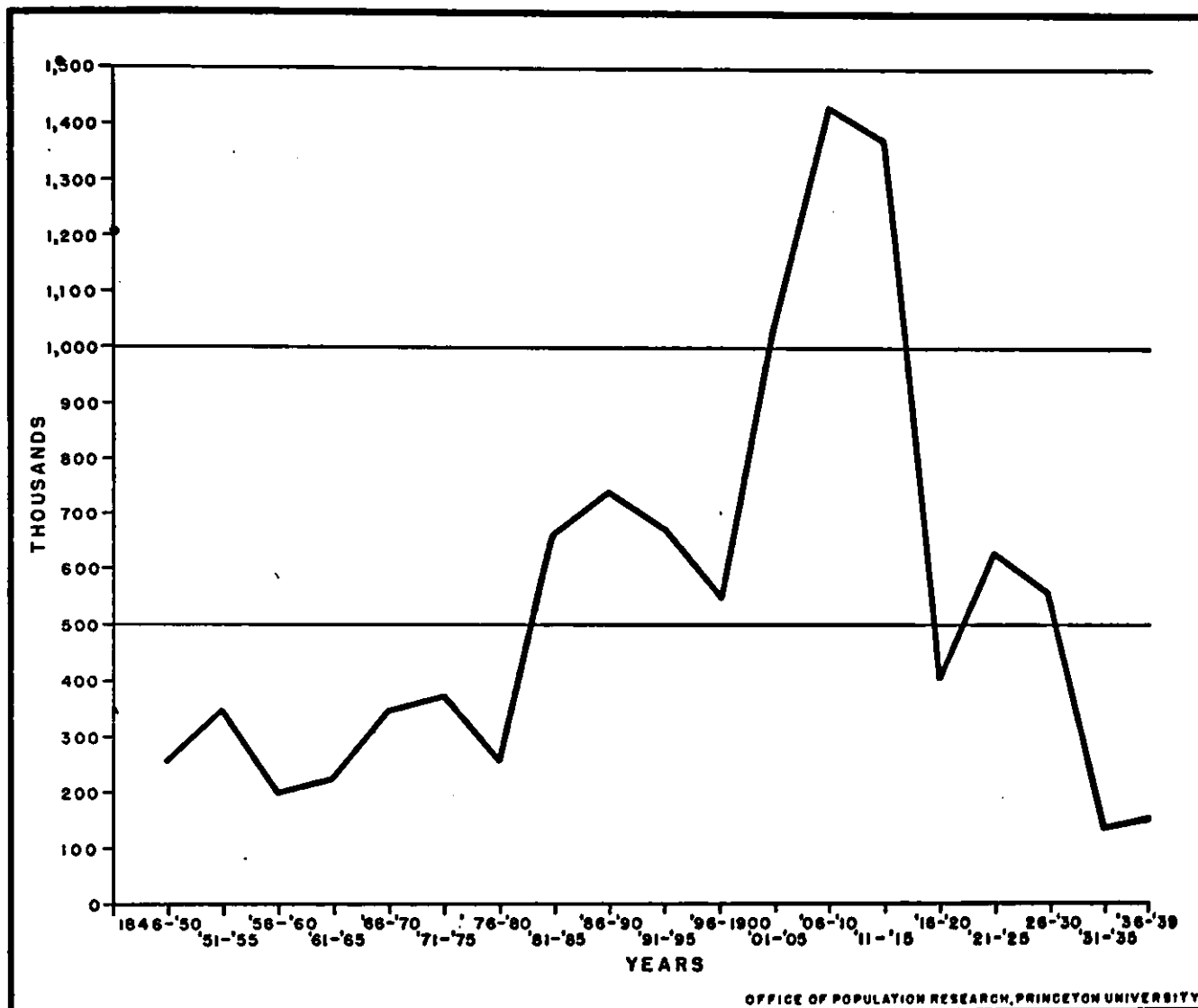


FIGURE 19. Average annual overseas emigration from Europe, 1846-1939.

subside with the growth of commerce and industry, and consequently of economic opportunity, at home.

The course of migration from the several countries of Europe is shown in Figures 20 and 22.<sup>7</sup> A distinction is made between those countries in which migration was early established and those touched more recently by the migration fever. For ease of distinction, the movements from the former countries are called "old migration," those from the latter are termed "new migration."

<sup>7</sup> The data are drawn from the materials listed in Note 6 *supra* and are presented in detail in Appendix III, Table I. It will be noted that in these charts, and in the following discussion, return migration is not considered. Some modifications of the general outline would be introduced if differing proportions of emigrants returning at various times and in the several countries could be taken into account. Unfortunately materials on return migration are particularly incomplete and unreliable, and there is insufficient coverage to permit adequate international comparison over any considerable time period.

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The "Old Migration"

The United Kingdom was the first country of mass emigration. In their long history of colonization the British Isles have sent some 20 million emigrants overseas. The greatest of all emigrating countries, the British Isles have supplied a third of all overseas emigration from Europe.<sup>8</sup>

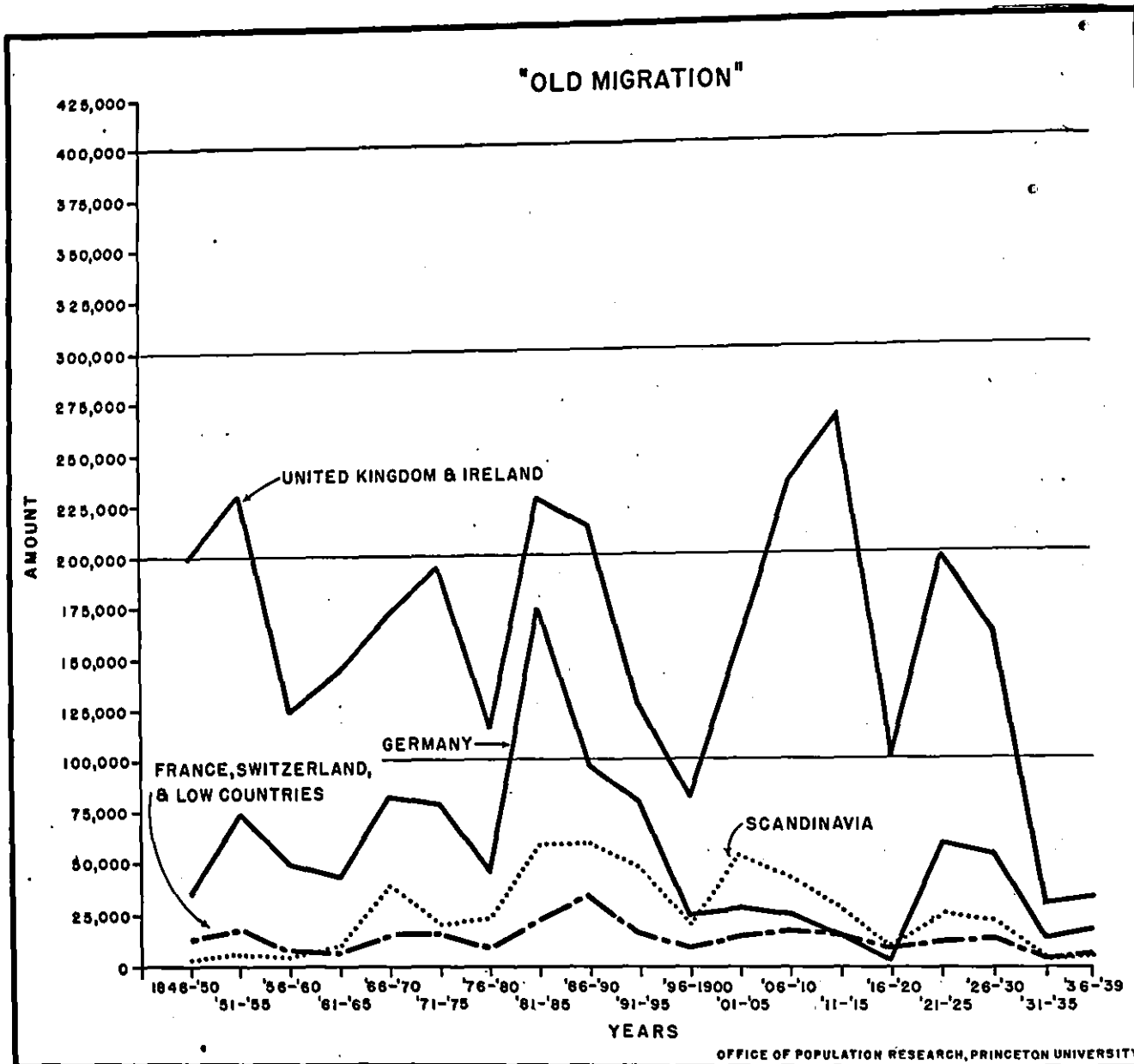


FIGURE 20. Average annual overseas emigration from regions of "Old Migration," 1846-1939.

In the early days of colonization geographical location, extensive commercial connections, and a vast colonial empire combined to offer the dispossessed English yeoman favorable opportunities for emigration. Though Catholic Ireland did not play a large part in early colonization, by 1820 the emigration fever had spread from Scotland and North Ireland, and already emigra-

<sup>8</sup> Full accounts of emigration from the United Kingdom are given in R. S. Walshaw, *Migration to and from the British Isles* (London: Jonathan Cape, 1941), which covers interwar movements; in W. A. Carrothers, *Emigration from the British Isles* (London: P. S. King & Sons, 1913), which relates particularly to the movements to the Dominions; and in Stanley C. Johnson, *A History of Emigration from the United Kingdom to North America* (London: George Routledge & Sons, 1913), which provides a well-documented account with a full bibliography of contemporary articles and legislation.

tion had become a traditional escape from agrarian overpopulation and absentee landlordism. This movement reached tremendous proportions in the 'forties and 'fifties, when Ireland was the leading country of European emigration.

After the Irish famine migrations of the mid-century, emigration from the British Isles fluctuated violently from year to year with sharp cyclical peaks and troughs over longer periods. In general a high level of emigration was maintained. Because the population of the British Isles was growing rapidly the rate of emigration experienced an irregular decline, but the absolute numbers involved continued large.

An examination of the composition of emigration from the British Isles reveals that this apparent over-all stability of movement over longer time periods is the result of sharply conflicting trends as between migration to the British Empire and that to other overseas destinations (Figure 21).<sup>9</sup> The movement to the United States, which was far and away the most important foreign destination of British overseas migrants, has fallen irregularly but persistently. The pattern of migration from the British Isles to the United States since 1870 has resembled that of Scandinavia to the same destination. On the other hand emigration to the Empire rose very rapidly between 1900 and 1914 and even after the war remained at levels higher than in the nineteenth century.

After 1890 emigration to the United States became less attractive to the mass of British subjects. Owing to rising levels of living in England the unskilled British emigrant found himself at a disadvantage in competing with laborers coming from peasant Europe. British emigration to America was increasingly composed of artisans and skilled workmen who would not find it necessary to compete with unskilled labor in America. In any event the fuller industrialization of England had almost eliminated the yeoman class that formerly provided a large source of emigration. At the same time industrialization and rising levels of living attracted surplus population from Ireland to England and Scotland that otherwise might have gone to America.

British emigration to the Empire had the quality of being both internal and overseas. As compared with other emigrants British subjects were a peculiarly favored class in the Dominions, which took the bulk of British migration to the Empire. The rapid development of Canada and Australia in the immediate prewar period favored a large movement from the mother country, especially to the new industries and growing cities of these daughter nations.

In Germany the first source of emigration was the peasantry of the Palatinate. Impelled by the unlimited division of agricultural holdings, by the unreliability of the potato crop, and by war and political disturbance, the flow of emigration moved down the Rhine, which served as an artery of international commerce at a time when northern and eastern Germany were largely cut off from it. Between 1830 and 1840 the Weser was added to the Rhine as an exit gateway and by the end of the decade emigrants were pouring down the Elbe through Hamburg. In the eighteen-forties the wave of emigration spread to the Hesses, to Westphalia, to Thuringia, and then, with the construction of railroads, to Central and East Germany. The crest of the wave was reached in the Southwest and West in the mid-'fifties, in Central Germany several years later, and in the East in the 'seventies and 'eighties. German emigration reached its maximum

<sup>9</sup> Unfortunately official British emigration figures prior to 1913 relate to total passengers leaving for overseas destinations, and not to emigrants strictly speaking. The figures presented in Figure 21 are passenger statistics adjusted by the author on the basis of the ratios of "immigrants" from the British Isles arriving in the United States and Canada to the reported number of total passengers leaving for these destinations in the comparable 5-year periods. These ratios were applied to total overseas passengers leaving the British Isles to obtain an estimate of *bona fide* overseas emigration as distinguished from commercial and pleasure travel. The data thus obtained can be considered indicative only of general trends.

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in the 'eighties and then subsided rapidly in the face of opportunities at home created by the rapid industrialization of the German Empire.

Large-scale emigration from Scandinavia developed somewhat later than that from Germany, but rapidly reached big proportions. The flow at first came predominantly from Norway, then from Sweden, and only some years later and to a much smaller degree from Denmark. In

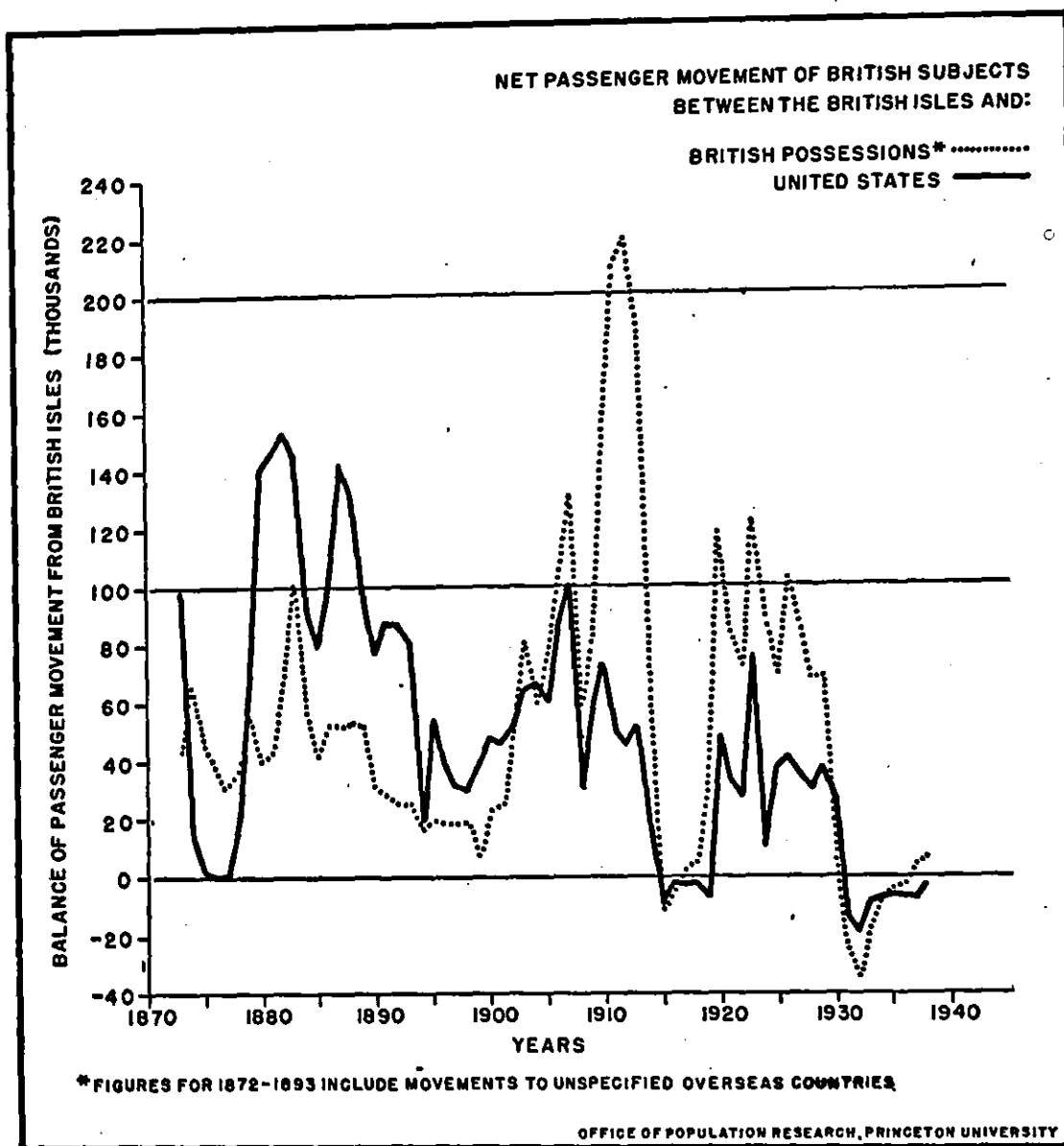


FIGURE 21. British migration to the United States and to British overseas possessions as measured by the net passenger movement of British subjects, 1873-1938.

relation to its population Norway has been next to Ireland and Scotland in rate of overseas emigration. The peak of emigration was reached somewhat later and continued longer in Scandinavia than in Germany, but later waves from Scandinavia never equalled the height of the movement during the 'eighties.

Unlike the early flights from Ireland and southwestern Germany, Scandinavian emigration has never been motivated by famine or acute economic distress. Four-fifths of the Norwegian emigrants between 1905 and 1925 described their motive as "lack of access to profitable occupation." Bad conditions in Scandinavia were of less immediate influence in determining emigration than good business conditions in America. In other words emigration was motivated by a desire for economic and social betterment, not by immediate necessity. With growing

opportunities at home and increasing competition of peoples from less favored European countries in the overseas lands Scandinavian emigration followed a descending spiral.<sup>10</sup>

### *The "New Migration"*

Up to the middle of the last century mass emigration was almost entirely from Northern Europe. It is true that Latin countries had been the leaders in the age of discovery and over the centuries much Latin stock found its way to other continents. As compared with modern overseas migration the flow of Frenchmen, Spaniards, and Portuguese to their colonial empires was numerically small, but of cumulative importance because of the great span of years covered.

The first modern large-scale Latin emigration came from Italy. From 1860 to 1913 emigration from Italy followed a rapidly ascending curve with such huge numbers involved that Italy, after the British Isles, has been the second country of European emigration. In the years 1906 and 1913 overseas emigration from Italy alone exceeded half a million; the total movement of Italians to overseas destinations probably exceeds ten million.

The overseas destinations of Italian migration and its sources within Italy have undergone radical shifts. With the opening up of Argentina, Brazil, and Uruguay, the demand for labor began to draw North Italians in large numbers. Up to 1900 two-thirds of Italian overseas migration had come from North Italy and the bulk of it was directed to South America. By 1900, however, a rising flood of emigrants poured from the South to the United States and by the time of the First World War this had become the dominant movement from Italy.<sup>11</sup>

France has never been a country of mass emigration. Relatively slow population growth, the early loss of an overseas empire suitable for European colonization, and perhaps the long tenure of France as the cultural center of Europe have combined to check the incentive to migrate. The first two elements operated to a lesser degree in Spain and Portugal. In the latter countries, however, interest in overseas opportunities revived in the second half of the nineteenth century, though the new appeal was to laborers and not to adventurers. Since the 'eighties there has been a large and steady flow of emigrants to Latin America, and in later years there developed a substantial overseas seasonal migration taking advantage of the difference in harvest months in the Northern and Southern Hemispheres.

Heavy emigration from Eastern Europe is of more recent origin than the movement from Latin countries. In its origins it was connected with the waves of migration that earlier swept Germany and Central Europe. Up to 1850 emigration from Austria-Hungary was almost wholly confined to Bohemia; as the magnetic attraction of the New World spread from the West it first reached only the more progressive elements: the Germans, the Czechs, and the Italians. This earlier movement was replaced in the 'eighties by a rising flood of Slovenes and Croats from the South and of Poles in the North. By 1900 emigration from Austria was predominantly made up of Poles, Jews, and Ukrainians from Galicia. Mass emigration from prewar Hungary is a twentieth century phenomenon. The Slovakian minority predominated in the first movement, to be followed only after 1900 by a large flow of Magyars. By 1910 all of the varied elements of the Hungarian population had substantial representation in the outward move-

<sup>10</sup> *International Migrations, II, Interpretations*, pp. 291-297. Cf. also Dorothy S. Thomas, *Social and Economic Aspects of Swedish Population Movements, 1750-1933* (New York: Macmillan, 1943), pp. 88-92 and 166-169.

<sup>11</sup> The regional development of Italian emigration exemplifies the common European pattern. The possibility of emigration first captured the imaginations of the most progressive elements of the population; i.e., in the North. In other regions the static social conditions of an agricultural and patriarchal civilization shut off knowledge and appreciation of the advantages to be derived from migration. Political unification, increasing contacts with more advanced areas, and the tariff policy that transformed southern Italy into a colony of the North all combined to stimulate economic incentives that could be satisfied only by emigration. Cf. Anna Maria Ratti in *International Migrations, II, Interpretations*, p. 447.

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ment, the rates of emigration being highest for the Slovaks, Germans, and Ruthenians and lowest for the Rumanians and the dominant Magyars.

Few Rumanians, Bulgars, or Serbs have joined in overseas migration. Prior to the First World War the pull of overseas countries had just begun to attract Balkan elements. A majority

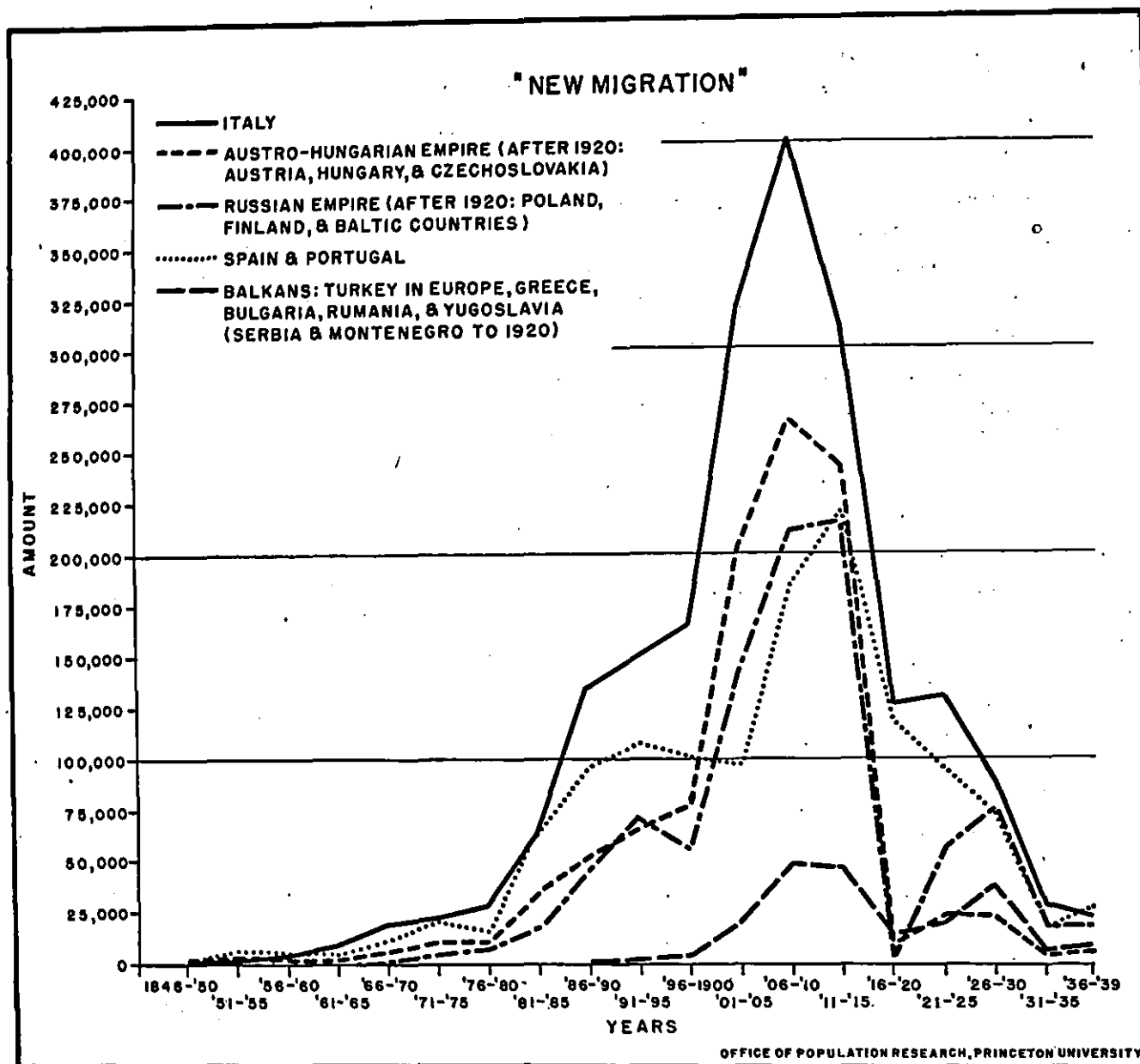


FIGURE 22. Average annual overseas emigration from regions of "New Migration," 1846-1939.

of the total overseas emigration from interwar Rumania was non-Rumanian, i.e., of German, Hungarian, and Jewish minorities. Migrants from Yugoslavia were chiefly Dalmatians, Croats, and Slovenes, and not Serbs proper.

Likewise, though prior to World War I Russia was for a brief time one of the chief countries of emigration, the most significant feature of this movement was its non-Russian character. Almost half of the emigrants from Imperial Russia were Jews, who, on the one hand, had great incentives to escape religious persecution, and, on the other, knowledge of opportunities by virtue of their urban residence and higher standards of education. The remainder were chiefly minorities either geographically or culturally most exposed to contact with Western

Europe. There were Lithuanians and Finns from the Baltic regions, Germans from the Volga settlements, Ukrainians, and, above all, Poles.<sup>12</sup>

### *The Emigration Cycle*

Up to the outbreak of the First World War, Europe experienced successive waves of mass emigration fluctuating with opportunity abroad and with crises at home. Each succeeding wave drew into its vortex people from a larger perimeter than its predecessor, and the total volume of migration increased with the expanding population and area from which it was drawn. As regards any given area of emigration a characteristic cycle may be observed.

In its primary stage mass emigration was first and foremost an agricultural phenomenon affecting rural people from rural countries. Crop failure, absentee landlordism, subdivision of holdings, and agrarian poverty have been so common that in almost every European country there has been incentive to migrate. What has been equally important in emigration has been knowledge of opportunities in the New World and of ready means of access to them. Isolated rural areas, though they may have particularly poor economic conditions, generally do not furnish mass migration. In these areas a hard lot is accepted as a matter of course for lack of knowledge of means of improving it. It is the rural areas in transition, areas in first contact with urban and commercial influences, that send out swarms of emigrants. A certain degree of knowledge and sophistication is necessary to the appreciation of a distant country and its opportunities. Interest must be stimulated by contact with persons who have successfully taken advantage of these opportunities. The building of railroads and other improved means of transportation provide a new gateway to the world and a growing appreciation of the possibility of bettering one's lot in a new land. The introduction of a money economy and of material values stimulates new desires for economic betterment that do not seem possible of achievement at home. Modern influences bring about lower death rates and a rapid growth of population without compensating expansion in local opportunities. Aspirations outrun the means of achieving them at home, and emigration appears to be the ready answer to this dilemma.

Emigration has thus followed the spread of modern economic development from its centers in Northwestern Europe to the peripheries of the continent. As the surge of progress has reached a larger and larger area the character of the emigration has changed with the new areas brought into the magnetic force of the New World. Early mass migration was largely North European because opportunity and awareness of opportunity first came to these peoples. As awareness of opportunity spread to Southern and Eastern Europe the peoples of these areas inevitably assumed a larger place in the migratory movement. Up to 1914 the proportion of overseas emigrants from the East and South regularly increased until in the decade 1901-1910 they composed more than three-fourths of the total (Figure 23).

After the first rush of emigration following the opening up of a new area, the tide has usually subsided. In relation to population size the peak of emigration had been passed before the middle of the nineteenth century in England. In Germany the peak of emigration was passed in the West and Southwest during the eighteen-fifties and in the country as a whole during the 'eighties. The Irish, Swiss, and Scandinavian emigrations likewise passed their peaks before

<sup>12</sup> In this very brief review of the history of overseas migration no attempt has been made to provide systematic documentation of the many streams of migration mentioned. There is an enormous literature on the subject both in English (chiefly written from the point of view of the countries of immigration), and in the respective languages of the countries of emigration. Sources in English up to 1935 are adequately covered in the annotated bibliography appended to Chapters III and IV of Davie, *op. cit.* The most readily accessible analyses from the point of view of the sending countries are those incorporated in *International Migrations*, Vol. II, *Interpretations*. Both American and European publications on overseas migration appearing since 1935 are very fully covered in *Population Index*, the quarterly bibliographical publication of the Population Association of America.



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1900; to the extent that their peoples participated in large-scale migration, this was also true of France and the Low Countries.

In the later stages, the character of migration tends to change with the character of the sending country. As early as the middle of the last century emigration from England had ceased to be predominantly agricultural. In keeping with the progress of the industrial revolution a

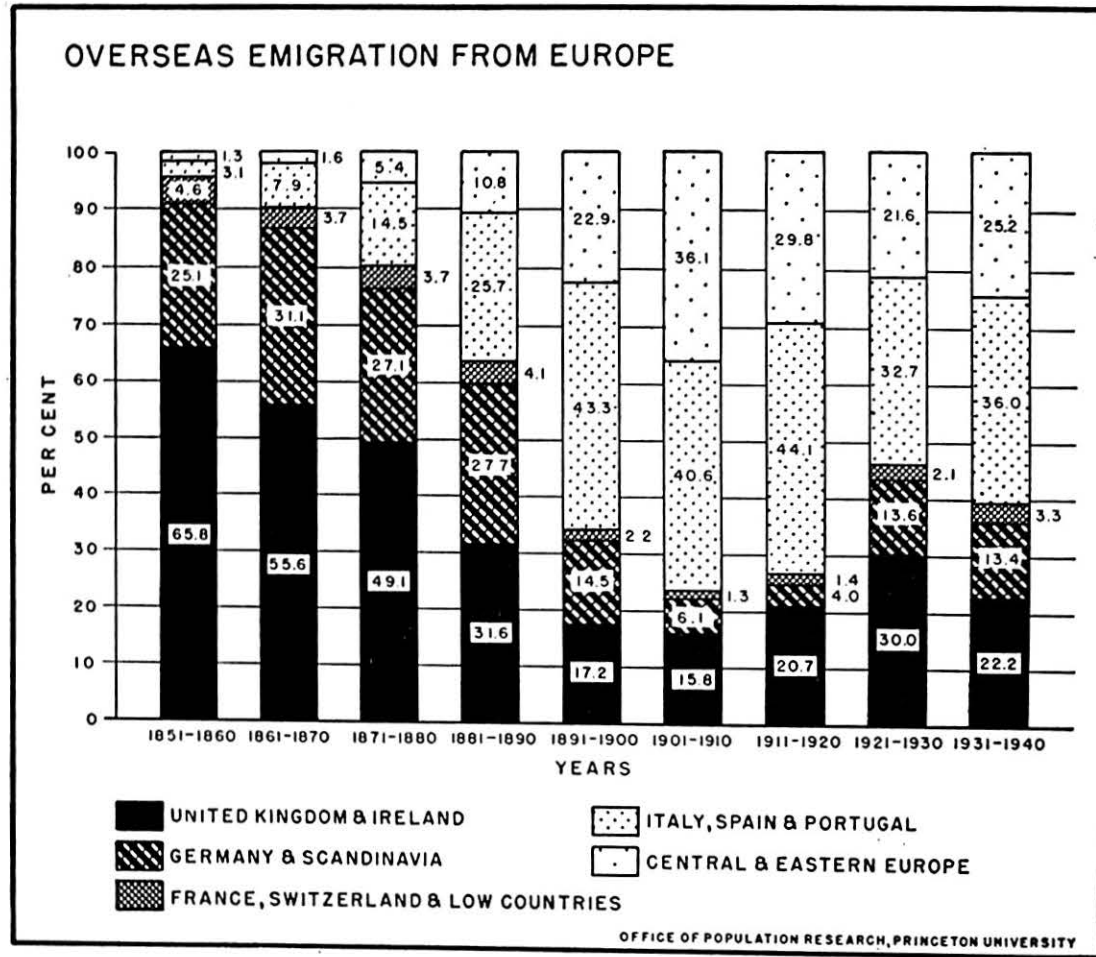


FIGURE 23. Per cent distribution of overseas emigration from Europe according to region of origin, 1850-1940.

larger and larger proportion of the emigrants were mechanics and other skilled workers. In the later stages emigration from southern Germany included a high proportion of handicraft workers, reflecting the degree of development of craftsmanship in that area.

In general the rate of migration has tended to fall with industrialization and national economic development. In the industrial countries the attraction of overseas lands tends to be offset by new opportunities in commerce and industry at home. Even though these opportunities may not equal the more distant ones this differential is counterbalanced by the undesirable necessity of adjusting to the alien customs and frequently the alien language of an overseas country. Furthermore, with economic and national development non-colonial powers come to look askance at the loss of human capital in emigration and actively discourage the outward flow.

It will be observed that the development of migration prior to the First World War was linked both geographically and chronologically to stages of the vital revolution. Large-scale emigration logically accompanies the stage of demographic evolution in which death rates have been reduced without compensating declines in the birth rate, and in which large population growth is occurring in a still predominantly agrarian economy. This was in fact the position of the Medi-

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terranean and Eastern European countries, which were the chief sources of the tremendous tide of migration that reached its peak in the decade prior to World War I. The Northwestern countries continued to supply large numbers of emigrants, but at lower rates in relation to their population size and in decreasing proportions of the total. In France, which was far in the lead in demographic evolution, emigration was negligible.

### *The Interwar Period*

#### *The End of the Great Migrations*

The normal course of overseas emigration was naturally completely disrupted by the First World War. The close of the war witnessed a resurgence of emigration from the principal emigrating countries, but in the majority the prewar volume was not regained. The total overseas movement from Europe had averaged well over a million per annum in the decade prior to the war, but in 1920 it amounted to about 850 thousand. The figures for 1921 and 1922 were sharply lower as the result of depression conditions in America, but even in 1923, the peak year of migration in the interwar period, overseas emigration totalled only about 900 thousand, a figure well below the prewar average. Even this level was not maintained, the effects of American exclusion acts (i.e., in 1921 and 1924) being evident in the lower volume of migration in subsequent years. Average annual emigration in the period 1921-1925 amounted to 629 thousand; in 1926-1930, to 556 thousand.<sup>18</sup>

Migration movements of the early 'thirties were governed by the economic collapse both in Europe and in the overseas destinations of emigrants. For the first time in the modern history of Europe the continent gained population through migration, though this situation was not sustained for the entire decade. The backwash of returning migrants rose in 1930 and reached its greatest volume in 1931 and 1932, after which it fell away to the normal stream of repatriates flowing back to their country of origin for family and other reasons not directly related to the economic crisis. The volume of return migration varied among the several countries of mass emigration. It was large for such countries as England and Spain, which have close cultural connections with overseas lands. Much of the so-called overseas migration from these countries has been of a temporary nature, in which the emigrant did not plan permanent residence abroad. Such emigrants naturally formed a more mobile group, who returned more quickly than others to their country of origin. The return movement to other countries of large emigration, such as Italy and Poland, was proportionately much smaller.

The outstanding change in intercontinental migration was not the increase of return migration but the shrinkage in new emigration. The 1931-1935 annual average was only 131 thousand, and this increased only slightly to 147 thousand in the years 1936-1939. In the 'thirties emigration reached the lowest levels in a century.

A substantial proportion of even this greatly reduced emigration might be considered a secondary movement resulting from previous emigration. Thus a large percentage of the depression emigrants were women, children, and old people going abroad to join the family wage-earners who had emigrated and become established overseas in more prosperous times. In the late 'thirties these were supplemented by increasing numbers of political refugees. Though the latter have never been numerous as compared with proletarian overseas migration their character and the circumstances of their departure from Europe make them important all out of proportion to their numbers.

<sup>18</sup> Cf. Appendix III, Table 1.

*Factors Affecting Overseas Migration*

The drying up of the stream of overseas emigration is, in some respects, difficult to explain. The war brought serious economic hardship to all of the vanquished and to some of the victors. Through political and social upheaval large groups were uprooted with loss of their property and of their traditional standing in the community. New minorities were created through the political reorganization of Eastern Europe. The war itself might have been expected to lead to skepticism regarding the possibility of resolving endless dissensions with their constant threats to the security of life and property. These things, always re-enforced by the persistence of agrarian poverty, might have been expected to provide a strong push to emigrate. At the same time the means of overseas transportation were never better, and American wealth and European poverty were perhaps never more glitteringly contrasted than during the 'twenties.

However, the elements favoring migration were more than balanced by adverse factors. In the first place, it soon became apparent that the chief overseas countries of immigration were taking an unfavorable view of future movements on the scale of the past. The United States, in particular, placed increasingly severe restrictions on immigration in 1921 and 1924. The objective of this legislation was to reduce immigration from those countries which had been the major source of immigration in the immediate prewar years and which, in view of their stage of development, might have been expected to be the sources of the heaviest future migration.

The annual immigration quotas pertaining to European countries as applied by the United States immigration authorities are given in Table 10.<sup>14</sup> The actual immigration figures for the fiscal year 1921 (the last year of "free" migration into the United States) are presented for comparative purposes. It is readily apparent that American legislation was directed at excluding the "new" migration from Southern and Eastern Europe. Thus 83 per cent of the European quota are allocated to Northwestern Europe, an area that supplied only 21 per cent of the actual number of immigrants from Europe in 1921, and about the same proportion in the prewar years of 1910-1914. By contrast, Central, Southern, and Eastern European countries are allocated only 16 per cent of the quota, though these regions furnished 78 per cent of the 1921 immigration and 80 per cent of the 1910-1914 average. The quotas provide for 90 per cent of the volume of migration from Northwestern European countries in 1921 and, in actual fact, quotas for these countries commonly were not filled in the interwar period.<sup>15</sup> The quotas assigned to Eastern and Southern Europe admit only 5 per cent of the number actually entering the United States from this region in 1921. As a natural result there was heavy pressure on these quotas in the 'twenties, though in the 'thirties even the quotas for Eastern and Southern European countries often remain unfilled.

Since the United States had been the chief goal of overseas migration for a century, the establishment of barriers to free movement by that country had sharp repercussions on the total volume. Before the First World War the United States accounted for about 60 per cent

<sup>14</sup> The quotas given are those in effect since 1934. The first quota legislation (the Immigration Act of 1921) restricted the number of alien immigrants from each European country to three per cent of the number of foreign-born of that nationality living in the United States in 1910. In 1924 the quota was reduced to two per cent of the foreign-born of corresponding nationality reported in the American census of 1890. The national origins provisions of the 1924 act (which came into effect in 1929 with slight revisions to 1934) provided that the immigrant quota of any nationality should bear the same relation to a total quota of 150,000 as did persons of that national origin to the total inhabitants of the United States of national origins subject to the quota law. Since all quota countries were assigned a minimum of 100 annually the total permissible quota immigration exceeds the assumed 150,000 maximum.

<sup>15</sup> A substantial number of European immigrants into the United States do not come under the quota restrictions (e.g., husbands, wives, and children of American citizens).

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TABLE 10

United States Immigration Quotas for European Countries  
and Actual Immigration, 1921 and 1910-1914

Country	Annual Immigration Quotas <sup>1</sup>		Actual Immigration 1921		Average Annual Immigration 1910-1914 <sup>5</sup>	
	Number <sup>2</sup>	% of Total	Number <sup>2</sup>	% of Total	Number <sup>2</sup>	% of Total
"Old" Migration	125,653	83.5	138,551	20.9	182,580	19.8
Belgium	1,304	.9	6,166	.9		
Denmark	1,181	.8	6,260	.9		
France	3,086	2.1	9,552	1.4		
Germany	25,957	17.2	6,803	1.0		
Great Britain & Ireland	83,574	55.5	79,577	12.0		
Netherlands	3,153	2.1	6,493	1.0		
Norway	2,377	1.6	7,423	1.1		
Sweden	3,314	2.2	9,171	1.4		
Switzerland	1,707	1.1	7,106	1.1		
"New" Migration	24,048	16.0	520,654	78.4	738,612	80.1
Austria	1,413	.9	4,947	.7		
Bulgaria	100	.1	585	.1		
Czechoslovakia	2,874	1.9	40,884	6.2		
Estonia	116	.1	—	—		
Finland	569	.4	3,795	.6		
Greece	307	.2	28,502	4.3		
Hungary	869	.6	7,702	1.2		
Italy	5,802	3.9	222,260	33.5		
Latvia	236	.2	—	—		
Lithuania	386	.3	—	—		
Poland	6,524	4.3	95,089	14.3		
Portugal	440	.3	19,195	2.9		
Rumania	377	.3	25,817	3.9		
Russia (Total)	2,712	1.8	6,398	1.0		
Spain	252	.2	23,818	3.6		
Turkey (Total)	226	.2	18,126	2.7		
Yugoslavia	845	.6	23,536	3.5		
Total Europe <sup>4</sup>	150,501	100.0	664,099	100.0	921,614	100.0

<sup>1</sup> Under the Immigration Act of 1924, and according to quotas in effect since 1934.

<sup>2</sup> U.S. Department of Commerce *Statistical Abstract of the United States, 1943, p. 106.*

<sup>3</sup> *International Migrations, I, Statistics, pp. 391-393.*

<sup>4</sup> Totals include figures for minor areas not listed separately.

<sup>5</sup> Owing to territorial changes, data for individual countries are not comparable for prewar and postwar dates, and are omitted for the earlier period.

of the immigration into the four major American countries of immigration: Argentina, Brazil, Canada, and the United States (Figure 24). In the first postwar years this position was maintained, but after the application of stricter limitations on immigration in 1924 this proportion fell. In the period 1921-1925, 51 per cent of the total overseas emigration directed to these countries went to the United States. In the last half of the decade this proportion was reduced

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to 32 per cent and in 1931-1935 both Argentina and Brazil exceeded the United States in amount of immigration.

Though the United States was displaced as the major goal of overseas movement it does not follow that there was any substantial diversion of European emigration from the United States to other overseas countries. The fluctuations of movement into the chief countries of immigration suggest the contrary; there appears to have been little substitution of other destinations for the United States, and what there was clearly did not balance the sharp curtailment

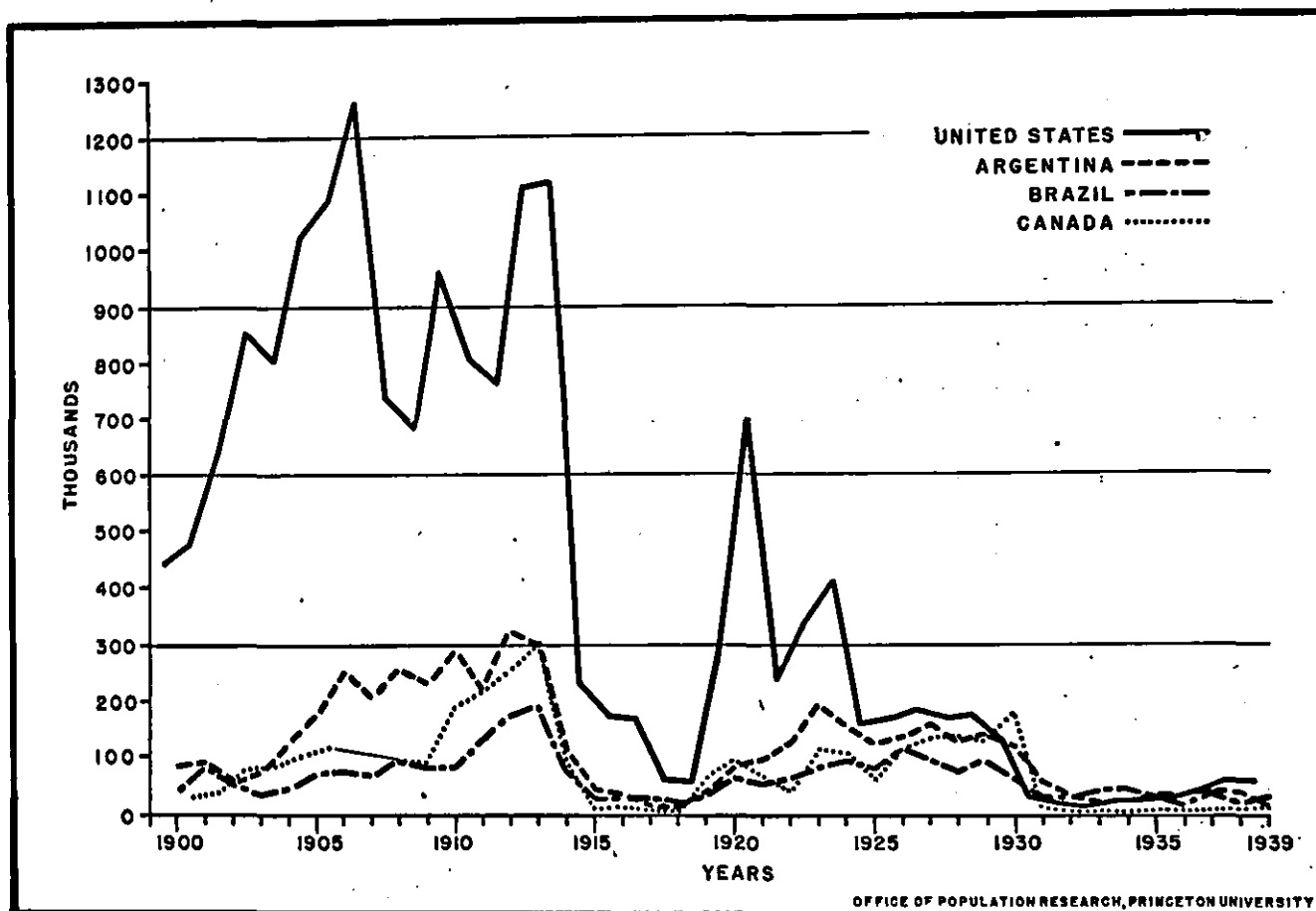


FIGURE 24. Overseas immigration into the chief countries of destination, 1900-1939.

of movement into that country. Even in those countries without restrictive legislation the volume of immigration was lower than it had been before the war.

These considerations suggest that conditions in the receiving countries offered declining inducement to migration even disregarding quota systems and other barriers to free movement. Free or cheap land was obviously no longer available in these countries, except where sizable capital was necessary for its development and where climatic conditions were such as to dictate a type of cultivation for which the European peasant was untrained.<sup>18</sup> Furthermore the appeal of land is no longer so strong as it was, and dims by comparison with the attractions and greater ease of non-agricultural occupations. What the new countries had to offer was no longer land, but a higher standard of living in non-agricultural employment.

As long as the new countries offered ready opportunities for an immigrant to acquire property and to rise in the social scale the disappearance of the frontier and its free land was not a serious

<sup>18</sup> It is true that in any case the immigrant was rarely a pioneer himself. But the existence of good free land on an expanding frontier, and its attraction for natives, assured the immigrant ready access to cheap land in areas already settled.

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obstacle to immigration. In fact, the greatest waves of migration were induced by the rapid industrialization of the United States in the late nineteenth and early twentieth centuries at a time when good free land had already disappeared.<sup>17</sup> But in the new countries, as in Europe, difficulties in the way of obtaining property and economic independence have been increasing. The economies of large-scale enterprise in most forms of industrial production have made the existence of the small entrepreneur increasingly difficult. Even in the realm of distribution large units have weakened the position of the small dealer. In many fields much larger capital is required than formerly to start a business. These things have lessened opportunities for the immigrant to establish himself successfully as an independent owner. As a sequel to these changes a larger and larger part of the population, native and immigrant alike, have become employees.<sup>18</sup>

For peoples already established in overseas countries the increasing prevalence of employee status is counterbalanced by greater opportunities for "white-collar" employment. But this avenue of advance is often barred to alien immigrants. Differences in education and language are often insurmountable handicaps to advancement in clerical and managerial capacities.<sup>19</sup> Furthermore there is every evidence of increasing awareness of the competition of foreign labor, and the alien is relatively defenseless against discriminatory legislation such as that in the United States excluding all non-citizens from employment in the civil service. It has become increasingly difficult for a foreigner to get a good job.

Faced with the alternative of becoming a member of the proletariat in an overseas country or in a nearby town or city the prospective emigrant is likely to choose the latter, even at the cost of a considerable sacrifice in standard of living. The risk is small, the migrant remains relatively close to home and friends, and much of the strain of adjustment to alien customs and language involved in overseas emigration is avoided. The growth of nationalism in both sending and receiving countries has made this adjustment increasingly difficult.

While opportunities in overseas countries have become less attractive and less available there were also changes in Europe that modified the current of emigration. In many European nations the growth of cities, and of industry and commerce, increasingly offered alternatives to emigration overseas at the same time that past declines in the birth rate were beginning to

<sup>17</sup> Thus as early as 1890, 62 per cent of the foreign-born white persons in the United States were resident in urban communities as compared with only 26 per cent for the native white. U.S. Census Bureau, *Thirteenth Census of the United States, Vol. I, Population, 1910* (Washington: Government Printing Office, 1913), p. 175.

<sup>18</sup> According to the 1940 census of the United States only 18.5 per cent of the labor force were employers or workers on their own account. More than half of these were farmers or farm managers. Though comparative data for earlier censuses are not available, other evidence suggests: (a) that the average size of economic enterprises has been growing, (b) that there are growing elements of rigidity in the social class structure. On the first point see A. A. Berle and G. C. Means, *The Modern Corporation and Private Property* (New York: Macmillan, 1933) and the analysis of causal factors determining the size of enterprise given in the National Resources Committee report on *The Structure of the American Economy. Part I. Basic Characteristics* (Washington: U. S. Government Printing Office, 1939), especially Chapter VII. Cf. also "Trends in Economic Organization" by E. F. Gay and Leo Wolman in *Recent Social Trends in the United States* (New York: McGraw Hill, 1933).

The second point is suggested by materials in P. A. Sorokin, *Social Mobility* (New York: Harper and Brothers, 1927), especially with reference to the class origins of American millionaires (pp. 464-465). This general conclusion is corroborated in F. W. Taussig and C. S. Joslyn, *American Business Leaders* (New York: Macmillan, 1932) Chapters X and XI. The increasing difficulties of establishing new businesses and in climbing the social ladder are reported in Robert and Helen Lynd, *Middletown in Transition* (New York: Harcourt, Brace, and Company, 1937), especially pp. 70-71. How these affect the immigrant in a small American city (Burlington, Vermont) is described in E. L. Anderson, *We Americans* (Cambridge: Harvard University Press, 1937).

<sup>19</sup> The percentage of all gainful workers in the United States engaged in the professions or in clerical or kindred employment rose from 14.3 per cent in 1910 to 22.3 in 1930. But in 1930 only 13.8 per cent of foreign-born workers were in these "white-collar" occupations as compared with 27.9 per cent among the native whites. In other words twice as large a proportion of native as foreign-born whites were in these occupations. U.S. Bureau of the Census, *A Socio-Economic Grouping of the Gainful Workers of the United States, 1930* (Washington: U.S. Government Printing Office, 1938), pp. 7, 11.

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reduce pressure on the available economic opportunities. The introduction of social insurance also probably acted as a deterrent in the more industrialized countries. People who have the security of unemployment insurance, old age pensions, and other forms of advanced social legislation are naturally loath to jettison them for a speculative advantage in a foreign land. In some countries active measures were taken to discourage overseas migration for nationalistic reasons. Thus in Fascist Italy efforts were made to divert the surplus agrarian population to internal colonization and to colonial settlement in Africa.<sup>20</sup> After the initial flight of refugees, emigration from the Soviet Union was almost completely halted by government prohibition and thereby an important and expanding source of emigrants was abruptly cut off. The subsequent industrialization and development of new areas in the U.S.S.R., together with liberal policies towards minorities, may have reduced the incentive to emigrate, but in any case emigration was forbidden. Finally, the stream of overseas emigration was in part being diverted to continental countries. The demographic position of France, particularly, was such as to induce large-scale immigration from neighboring countries and from Eastern Europe. France, and increasingly England and Belgium, were attracting migrants who might otherwise have gone overseas.<sup>21</sup>

### *Origins of Overseas Migrants Between the Wars*

The several influences discussed above are reflected in the distribution of interwar emigration as between countries. Aside from a brief period before the First World War the British Isles have been the chief source of overseas emigration for over a century. This position was regained after the war as the result of reduction in Italian emigration. Geographical location, trade connections, the possession of a great colonial empire, linguistic, political, and cultural affinities with important overseas countries—all favor Great Britain and Ireland as sources of emigration. The adjustment of life necessitated by emigration is at a minimum: the British emigrant need not sacrifice either his language or his status as a British subject. Since the customs of the Dominions and the United States are largely adaptations of English institutions, problems of adjustment and assimilation are relatively small. In many countries British immigration is highly favored and, in the case of Dominions, financially assisted by the governments concerned. Owing to these several advantages British and Irish immigration in the 'twenties amounted to 30 per cent of the total emigration from Europe.<sup>22</sup> However, British emigration was declining in both absolute and relative terms. In 1921-1925 it amounted to about a million and 32 per cent of the total; in 1926-1930 it had dropped to about 800 thousand and 29 per cent, despite the absence of any serious legal barriers to British migration. In the 'thirties British emigration fell more than the average and amounted to less than a fourth of the total for the decade.

Prior to World War I the movement of Italians had reached the highest figure for any European country in the history of overseas emigration. Primarily an agricultural country with poor natural resources, Italy nevertheless has the very high population density of industrialized countries. Agrarian poverty and rapid growth have supplied large surpluses of population which eagerly sought escape when the opportunities in overseas countries were appreciated

<sup>20</sup> At the same time emigration itself was made more difficult and expensive. Thus in October 1927 reduced railway fares for emigrants were abolished and after July 1928 Italians leaving the country were required to promise not to have their families follow them abroad. D. V. Glass, *Population Policies and Movements in Europe* (Oxford: Clarendon Press, 1940), pp. 222-223.

<sup>21</sup> The movement to France was to some extent itself a substitution for migration to the United States, which was inhibited by rigid quota systems. But in the absence of French immigration there might have been more European emigration to other overseas destinations and especially to Latin America.

<sup>22</sup> Though it should be noted that so-called "emigration" in British statistics includes a large number of persons leaving the United Kingdom for temporary residence abroad, e.g., as representatives of British firms, agents, etc. See p. 77, Note 9 above.

and the means of emigration were made available (as, for example, through labor agents and labor contracts). Over five million Italians left for overseas destinations between 1900 and 1915.

After the war Italian emigration fell irregularly but very rapidly. In 1921-1925 it amounted to 650 thousand or less than half the prewar average; in 1926-1930 it had fallen further to about 450 thousand. In terms of percentages Italy before the war accounted for up to 30 per cent of the total, in the interwar period less than 20. Immigration restriction in America, urbanization and industrialization at home, growing nationalism and the disapproval of emigration by the Fascist regime, the substitution of France for overseas objectives of migration, internal and colonial settlement, the falling birth rate—all contributed to the drying up of the flood of Italian migration overseas.

After the British Isles and Italy, the Iberian peninsula was the most important source of interwar emigration. To some extent Spaniards and Portuguese enjoy the same relative advantages in South America that the British have in the Dominions and the United States. The movement to South America continued large in the interwar period. In particular, growing ease of transportation has resulted in a seasonal migration of agricultural labor taking advantage of the opposing seasons of the two hemispheres.

The First World War resulted in a brief revival of emigration from Germany. Though Germany was one of the major sources of overseas emigration in the nineteenth century, political unification and industrialization greatly undermined the incentives to migration in the prewar period. The loss of territory and the economic hardships incident to defeat set in motion a new wave of emigration which never matched the flood of the 1850's and the 1880's but nevertheless supplied some half million emigrants in the 1920's. During the 1930's the emigration movement was numerically much smaller, totalling under 150 thousand in direct migration to overseas destinations, but significant because it included a high proportion of political refugees.

In all of the major countries of emigration mentioned the flow of overseas migration was declining even in the relatively normal 'twenties. The only major group from which emigration was rising prior to the depression were the peoples of Eastern Europe, despite discriminatory restrictive legislation in overseas countries specifically directed at reducing immigration from this region. The movement from Poland during the 'twenties amounted to over 500 thousand, while that from Rumania, Yugoslavia, Bulgaria, and Greece totalled about 325 thousand, the greater part of which occurred in the last half of the period. Migration from Eastern Europe (omitting the Soviet Union) was 13 per cent of the total in 1921-1925 and close to 20 per cent in 1926-1930.

The distribution of overseas emigration among the several countries of origin did not change markedly in the 'thirties. The most significant change was the reduction in the percentage from Scandinavia and the British Isles, with proportionate gains in the remaining countries of Europe. In Eastern and Southern Europe there appeared to be a persistent tendency to emigrate despite adverse conditions, but in all countries emigration was much lower than during the 'twenties. The only outstanding exception to the general trend was Jewish emigration to Palestine.<sup>28</sup> Though the times were not propitious for new settlement, the spirit of Zionism and the pouring in of capital from all over the world made possible considerable movement from European countries. Jews came to Palestine from all over Europe, but the largest contingents were from Germany and Poland. Poland alone sent over 100 thousand emigrants to

<sup>28</sup> Intercontinental migrations in the Mediterranean area are not customarily classified as overseas migration even though they technically involve transit over water. However, the movement to Palestine has many of the characteristics of more distant transoceanic migrations; it is therefore conventionally regarded as overseas and is so classified above.



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Palestine in the 'thirties. Other Eastern European countries had small outward balances of general overseas migration while in Western Europe and the Iberian peninsula most countries gained slightly from intercontinental exchange.

### *The Residue of Transoceanic Migration*

At the time of its virtual disappearance in the middle of the interwar period the great transoceanic migration had left a residue of 20 million persons in overseas countries who were born in Europe.<sup>24</sup> Over half (about 12 million) of these Europeans had found a home in the United States. Some five million were located in Latin America, and there were three million in the scattered British Dominions. Hundreds of thousands more were distributed in administrative and commercial centers in the various European colonies, in India, and in the Far East.

The principal destinations and countries of origin are shown in Figure 25 and in the corresponding data given in Appendix III, Table 3. The great bulk of transoceanic migration has gone to the Americas. Of all European-born persons living overseas about 1930 probably as many as nine-tenths were in North or South America. The greatest stream of migrants, that to the United States and Canada, was drawn from every corner of Europe. About three per cent of the total living population born in Europe was residing in North America in the interwar period. The proportions ranged from less than half of one per cent of those born in France, to a sixth of those born in Ireland. Taking account of previous migrations, probably half of the total Irish stock was living in the United States alone. The transoceanic movement has been so large and its concentration so great that major centers of European nationalities have developed overseas. Thus New York has been the largest Jewish and the largest Italian city in the world. There are colonies of almost every European nationality in the largest American cities. In the United States and Canada there were over a million foreign-born from no less than each of six countries—Italy, Germany, England and Wales, Poland, Russia, and Ireland.<sup>25</sup>

The attraction of other overseas areas has been more selective. The very large migration to Latin America has been overwhelmingly from Latin countries in Europe. More than four-fifths of the total has come from the three Southern European countries of Italy, Spain, and Portugal. The two former have contributed between one and a half and two million apiece, the latter about half a million. French, German, and British elements have played an important role in South America, either owing to their concentration of settlement, as in the case of Germans in southern Brazil, or owing to their commercial and economic position. But they have never been numerous in comparison with Southern European stocks.

Transoceanic migration to other areas of European settlement has been much smaller than to the Americas. It has also been more specialized as regards country of origin. Not less than 85 per cent of the European-born in South Africa, Australia, and New Zealand were of British origin. The non-British migrations have often been of specialized character, as, for instance, the movement of Italians to tropical Queensland, or of Russian, Lithuanian, and Polish Jews to the South African towns.

In the colonial areas and in the Far East the European-born have been essentially a transient

<sup>24</sup> This residue is the total overseas emigration from Europe as depleted through death and return migration. Statistics on return migration to Europe are very incomplete, especially for earlier periods. Consequently they have not been given much consideration in the preceding discussion although variation in the proportion of emigrants returning to the several countries modifies the picture given by emigration statistics in some of its details. In general the rate of return migration is higher among countries having close cultural and political connections with overseas areas (e.g., Great Britain and Spain), lower among countries having few such connections. Estimates of the net balances of overseas migration in the 'twenties (including not only the factor of return migration, but also the unimportant element of overseas migration to and from Europe by persons born outside of Europe) are graphed in Figure 26 below.

<sup>25</sup> Including both North and South Ireland, there often being no distinction in the statistics of overseas countries.

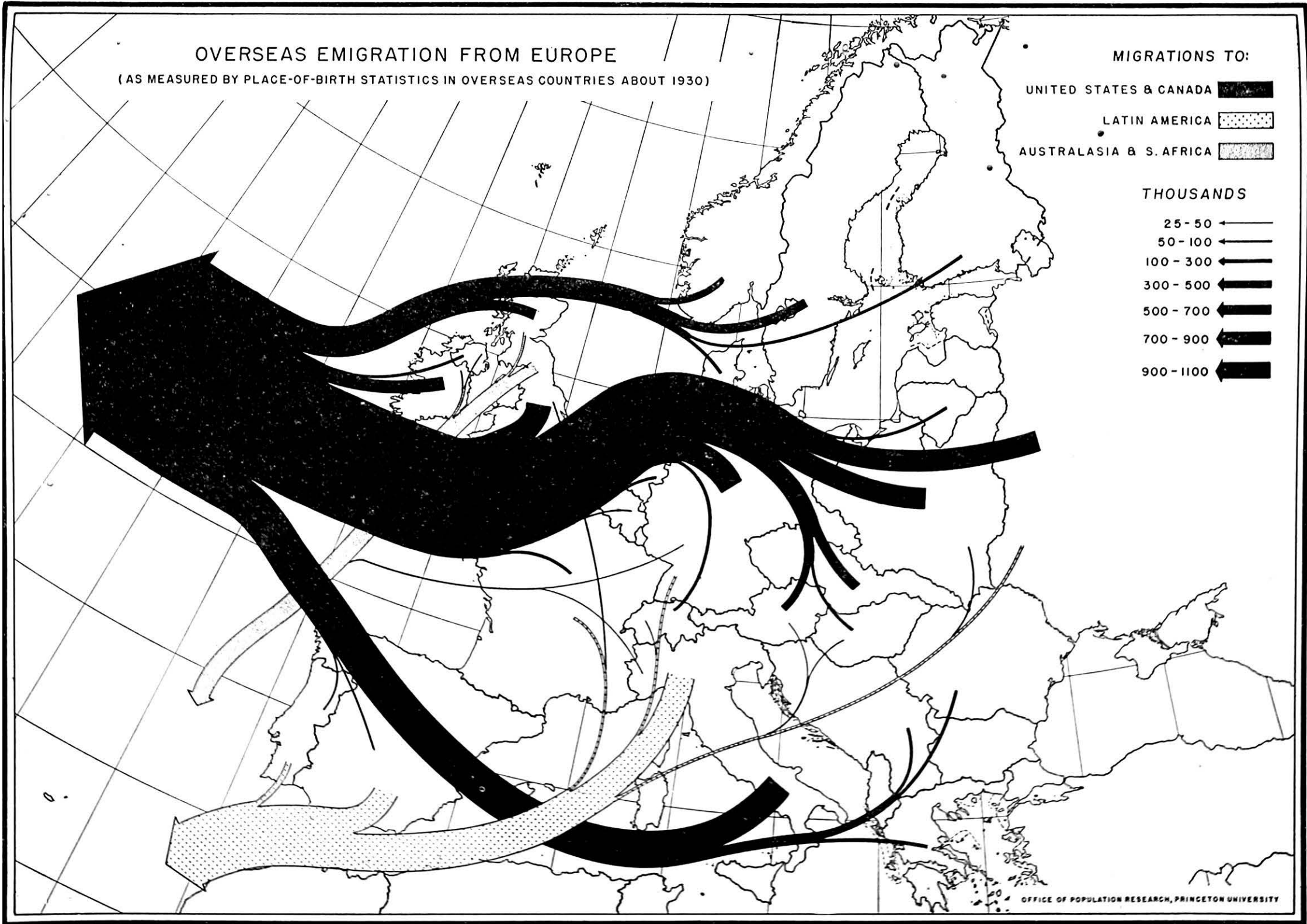


FIGURE 25. Origins and destinations of overseas emigration from Europe as measured by the origins of European-born persons living in overseas countries.

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community resident abroad for administrative and commercial purposes. In areas not directly under European political control there have normally been representatives of the Western European trading nations in close numerical correlation with the maritime and commercial interests of the nationality involved. The European population therefore tends to fluctuate violently with the fortunes of trade. In the colonial areas the number of Europeans is naturally closely tied up with the requirements of administration. Where, as in India, European officials have been increasingly replaced by natives, the European population is declining. In Far Eastern countries generally, opportunities for Europeans have declined with the education of natives and their substitution for Europeans in many economic activities.

### *Significance and Prospects of Overseas Emigration*

To Europe, overseas emigration has been an outlet for surplus and discontented populations. This feature of the great migration has been overdramatized by speech-makers in overseas countries, who have depicted the movement as a flight of European refugees from hunger and oppression seeking the freedom and the blessings of life in the New World. From the viewpoint of the sending countries it might as aptly be described as the dumping of unwanted elements on foreign shores.

In actual fact since the middle of the last century the overwhelming majority of emigrants neither were compelled to leave nor did they seek the New World in the expectation of finding a Utopia. Only a small minority have been political refugees; these have been a large proportion of the total only when, as in the late 'thirties, other migration has practically ceased. The total volume of overseas emigration in 1936-1939 amounted to only a fourth of the average figure during the 'twenties. The great bulk of emigrants have left for much more prosaic reasons than the desire for political freedom or the fear of starvation. The basic motivation has probably been that of achieving a higher social and economic status. Poverty of resources and conventional barriers to social advancement have often seriously restricted opportunities for betterment in the old countries. New countries with greater resources and a more mobile social structure have provided an occasion for escape from these restrictions. The motivations underlying overseas migration have differed only in degree from those promoting migration from farm to city; in fact by 1900 overseas emigration was characteristically a movement of European peasants to American cities, i.e., a rural-urban migration.<sup>26</sup>

Overseas emigration has normally been of benefit to all concerned. To participants the great mass migrations were a means of social and economic betterment; they were generally, though not universally, successful in achieving this objective. To the receiving countries immigrants were generally a source of cheap labor and the means of rapid economic development of relatively empty lands. To the sending countries they were a source of direct economic loss usually more than balanced by indirect gains. It is these effects on the countries of emigration that particularly concern us here.

Emigration is an expensive process from the point of view of the homeland. Overseas emigrants are predominantly young adults and generally include more males than females. They are characteristically people in the prime of life, at the peak of physical efficiency. Having borne the cost of their nurture and education through the years of childhood dependency, the sending countries lose them at the time of their greatest economic productivity. An estimate has placed the total capital loss to Germany through emigration overseas at 200 billion marks.<sup>27</sup> Similar

<sup>26</sup> Cf. the excellent summary of the character of European emigration in Forsyth, *op. cit.*

<sup>27</sup> Friedrich Burgdörfer in *International Migrations*, II, *Interpretations*, p. 370.

estimates for other countries postulate huge capital losses.<sup>28</sup> Regardless of the accuracy of such estimates it is obvious that the sending country loses valuable human capital that it has raised to adulthood at considerable expenditure of time and effort. Economically speaking, emigration is an export without direct compensation other than in the form of emigrant remittances.

On the other hand, important indirect advantages often accrue to the sending country. Emigration has rarely offered a definitive solution to problems of overpopulation, but it has afforded relief to acute problems of population pressure at critical times. Emigration has never removed more than a third of the natural increase of the continent in any given decade and was generally much below this figure. But in some countries emigration has been an invaluable safety valve at that stage in population development when falling death rates have provided a rapidly growing population without a compensatory rise in economic opportunities. Especially in static rural economies the migration of youths as they enter productive life removes a potential source of the further fractioning of holdings and of increasingly inefficient use of agricultural labor. It reduces the number of potential parents and hence of future redundancy on the land. In the absence of alternatives overseas emigration has served a useful purpose in providing an outlet for surplus rural population.

In a more general way, overseas migration has been one of the factors in the economic and cultural development of Europe, and it is perhaps in this role rather than in specific advantages, that emigration has benefited the continent. Emigration has provided the foundation of the lasting expansion of European civilization. The European continent has greatly benefited from this expansion. The exploitation of overseas resources by European emigrants has been a vital factor in the economic development of Europe. On the one hand, overseas countries settled by Europeans have been a great source of food and raw materials to supply the men of European cities and the machines of European industry. There can be little question but that the growth of European industry and wealth was facilitated by the settlement and development of Europe overseas. On the other hand, overseas countries with predominantly European populations have been the greatest markets for European production. Much of the European commercial and industrial structure has grown up in connection with overseas trade. The great importance of the Atlantic ports and their industrial hinterlands is certainly in part a function of trans-oceanic commerce. Since emigration has been both a part of this commerce and a factor in its creation, it may properly be included as one of the elements in the complicated skein of causation that has created the pattern of industrial power and cultural achievement in modern Europe.

The interwar period witnessed the fading and perhaps the end of the great overseas mass migrations from Europe. The future of overseas migration obviously cannot be predicted with any assurance of accuracy but some general conclusions may be drawn from past experience and the prospective positions of European and overseas countries.

The overseas movement reached its climax in the early nineteen-hundreds. Europe lost a net balance of some 8 million through migration between 1900 and 1910 and about 5 million in the decade 1910-1920, despite the war. The net loss of the 'twenties was approximately 3 million, or less than half that of the last prewar decade of peace.<sup>29</sup> During the 'thirties net loss through emigration was negligible. Aside from the relatively small flow of refugees, emigration responded little to the economic recovery of the late 'thirties. There has been a clear downward trend.

<sup>28</sup> Cf. Corrado Gini, "Europa und Amerika: Zwei Welten" in *Weltwirtschaftliches Archiv* 52 (1): 1-37, July, 1940 (including an appendix on the capitalized value of emigrants to the United States between 1820 and 1930 by Agostino de Vita).

<sup>29</sup> Estimates by the author in Notestein et al., *The Future Population of Europe and the Soviet Union* (Geneva: League of Nations, 1944), p. 82, adjusted upward to include the European territory of Russia.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

It may be argued that a combination of unusual circumstances in overseas countries checked the flow that otherwise would have occurred. Certainly the immigration restrictions and unemployment problems of overseas countries deterred migration. But it would be unwise to assume that immigration restrictions are a transitory phenomenon, reflecting a casual trend engendered by the depression. In the United States immigration restrictions preceded the depression. Furthermore, some of the chief countries of immigration can no longer be regarded as underpopulated and their inhabitants have become increasingly conscious of this fact. Organized labor, which has always been inimical to unrestricted immigration, has grown in strength with economic maturity. Furthermore the rising flame of nationalism in the world, fed by war and fear of war, has enveloped these countries. The inevitable result has been an increasing distrust of alien customs and the economic competition of foreigners. The war has not dispersed, but has accentuated, these sentiments. There is little hope of the relaxation of existing restrictions, except in those countries, such as Australia, where the realization of the necessity of peopling the country may over-ride other considerations.

If present restrictions are maintained, future overseas migration will probably be much more limited than in the past. Present laws in the United States, which has been much the most important destination of migration, restrict European quota immigration to an annual maximum of a little over 150 thousand, a figure which could be attained only if every country supplied its full quota. American immigration reached totals no less than eight times this figure in the heyday of overseas migration. The possibilities of diversion to other destinations are now limited by the application of similar restrictive legislation elsewhere, as in Brazil.

It is possible that new outlets for migration may be found in those countries for which the peopling of empty lands is a political necessity regardless of economic considerations. In the postwar period, Australia, for instance, may be prepared to accept European immigration that she formerly would have rejected as undesirable. However, the empty areas in Australia, in Canada, and in the Amazon valley do not necessarily offer attractions to Europeans. Low density of population does not usually mean economic opportunity but rather spells the lack of it. The better lands are already taken. Those that remain are either climatically unattractive to Europeans or require more capital than a European peasant can normally hope to muster. It is significant that recent large-scale overseas settlement has been reasonably successful only with substantial capitalization and even then only when the sponsors were willing to accept economic losses for political or other purposes.<sup>80</sup> Furthermore, land is no longer sought by the majority of European emigrants; agriculture has fallen into disfavor as a means of living and as a way of life.<sup>81</sup>

The declining appeal of empty countries reflects the great changes occurring in Europe as industry, commerce, and city life absorb a larger and larger share of the population. Most European countries are now past the stage of demographic evolution that in earlier times sent swarms of peasants to seek land abroad. In all parts of the world economic opportunity and the means of social betterment are to be found more in the towns than in the countryside. Land is no longer desired as the chief and universal form of wealth. The lure of the city has to a certain extent replaced that of the New World. In the early years of the present century these two attractions were combined in the cities of the New World and the movement to America was

<sup>80</sup> The outstanding case of recent settlement of large numbers of Europeans, that of Palestine, was achieved with the aid of a very large capital investment admittedly made chiefly for non-economic motives. To a lesser extent this was even true of the extensive Japanese colonization in Brazil in the interwar period. Cf. J. F. Normano and Antonello Gerbi, *The Japanese in South America* (New York: John Day, 1943).

<sup>81</sup> Questions of future land settlement and development are reviewed in Isaiah Bowman (ed.), *Limits of Land Settlement: A Report on Present-Day Possibilities* (New York: Council on Foreign Relations, 1937). Cf. also Forsyth, *op. cit.*

## OVERSEAS MIGRATION

both an overseas and a rural-urban migration. But today the urban proletariats of immigrant countries are hypersensitive to the competition of alien immigration. In such an atmosphere of discrimination the European peasant may wisely seek the less glittering opportunities of towns and cities where his own language is spoken and his customs are understood.

Finally, combined with changed barriers and incentives to migration there will be some release from the pressure of population through the approach of a stationary population. As indicated above, the ratio of persons reaching working age to those leaving the labor force through death and retirement will inevitably decline rapidly in the postwar years in every European country. In rural areas this will mean less pressure to further division of land holdings; in urban areas it will mean less pressure on the labor market from purely demographic causes.

The decline of population growth is also likely to have repercussions on the attitude of governments in emigrating countries. In a highly competitive situation nations are likely to be extremely jealous of their manpower, and especially that portion of it best suited for military service. Emigration overseas characteristically draws able-bodied young men in the most useful military ages. Their governments are certain to look with a jaundiced eye on the departure of such persons in large numbers, and it seems entirely possible that active measures will be taken to restrain emigration should it reach large proportions.

The foregoing discussion paints an unfavorable picture of the prospects for future overseas emigration.<sup>82</sup> In summary, the arguments leading to this conclusion are:

(1) The empirical experience of the past forty years demonstrates a sharp downward trend in overseas emigration, partly incidental to war and depression, but clearly apparent even in peace and prosperity. Unless the conditions creating this trend are radically altered there is every reason to assume its continuation into the future.

(2) One of the more important conditions reducing overseas migration has been immigration restrictions. There is little hope that these will be generally relaxed in the postwar era, and considerable danger that they will be even further tightened in the event of widespread unemployment. Furthermore, in view of war losses and manifest population trends it seems entirely possible that immigration restrictions in overseas countries will be re-enforced by official and unofficial restraints on emigration in Europe. These will be especially important if applied to those countries of Eastern Europe whose stage of economic and demographic development favors extensive emigration.<sup>83</sup>

(3) Quite aside from governmental action the attractiveness of overseas countries to the European immigrant has declined. This is evidenced by declining migration to countries without significant restrictions on immigration, even during the relatively prosperous 'twenties. On the one hand, the remaining "open spaces" are not suitable for intensive European settlement without extremely high capitalization and in any event their products would be a glut on the international market. On the other, many European countries have passed that stage of demographic and economic development that historically produced the greatest overseas migrations. The centripetal forces affecting migration have superseded the centrifugal ones.

(4) Certain general trends in both European and overseas countries militate against a new

<sup>82</sup> For similar, but in some regards contrasting, views of the factors favoring and obstructing overseas migration see Paul Mombert, "Le regression de l'emigration europeene" in *Revue economique internationale* 31 (1): 15-30, Jan., 1939, and Edward P. Hutchinson and Wilbert E. Moore, "Pressures and Barriers in Future Migration" in *Annals of the American Academy of Political and Social Science* 237:164-171, Jan., 1945.

<sup>83</sup> Emigration from the U.S.S.R. has long been proscribed by the Soviet state. The extension of Soviet boundaries and influence in Eastern Europe argues the likelihood of further restrictions on free emigration from this most important potential source of European overseas emigration.

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wave of migration on the scale of the past.<sup>84</sup> (a) The rising forces of nationalism have inhibited migration quite aside from formal governmental restrictions. The alien immigrant increasingly finds himself unwelcome and hence uncomfortable in the land of his adoption. Conversely, being more conscious of his own ethnic nationality, the prospective migrant is loath to sacrifice his language and customs for the sake of an uncertain economic advantage abroad. (b) The economic advantages to be derived from migration have probably been reduced by institutional changes in the economic structure. On the one hand, the growing size of economic enterprises has made it more and more difficult for the individual migrant to accumulate property and to achieve economic independence. On the other, increasingly important channels of social advance in the "white-collar" occupations are often barred to the immigrant by differences in language and education. At home the advance of social insurance gives the potential migrant a vested interest in remaining. (c) Finally, rigid control and restriction of migration are natural concomitants of economic autarchy and a socialistic economy. The widespread and growing importance of governmental participation in economic functions argues the scant likelihood of return to earlier conditions of unlimited migration with or without specific migration restrictions.

Some of the above arguments are admittedly qualitative and not subject to definitive proof. Nevertheless their cumulative impact is such that it seems safe to say that the long-time outlook for overseas emigration is unfavorable. Those who naively assume or fear a flood on the scale of the movements a generation ago are probably in error. All signs point to the danger of too little migration rather than too much.

Though the long-time outlook for large overseas emigration is unfavorable the immediate postwar era may witness considerable distress migration of uprooted Europeans. Certain groups, and especially the Jews, may find it impossible either to return to their former homes or to re-establish themselves in Europe. In this it is to be hoped that they may receive international and planned assistance. Others may seek to escape Europe's troubles by fleeing from them. In particular, many dispossessed nationals of the defeated countries might gladly emigrate, if overseas countries would accept them. But it seems likely that these movements will be temporary. The peopling of other continents from Europe is probably a passing phenomenon.

<sup>84</sup> These are discussed at greater length in the following chapter.

## CHAPTER VI

### INTERNATIONAL MIGRATION WITHIN EUROPE

SINCE the early tribal migrations that settled Europe, geographical proximity and cultural kinship have always facilitated a certain amount of exchange of populations among European peoples. The motives of such international migration have been varied. In modern times some of it has been closely related in character to overseas emigration. Eighteenth and nineteenth century German colonists in Russia, for instance, were impelled by much the same objectives as inspired emigration to America, and they encountered frontier conditions not entirely dissimilar to those that they might have found in Pennsylvania in the same period. Then, each political or religious upheaval in Europe has sent out its waves of émigrés. Finally, with the growing ease of travel and communication there sprang up in every country a substantial international community connected with international commerce and with cultural interchange.

In the nineteenth century international migration in Europe was not a mass migration after the pattern of overseas emigration. It partook more the character of an exchange. Thus English tutors and governesses were to be found in France, French tutors and governesses in England. German companies trading in foreign countries were likely to be represented by Germans, Austrian companies by Austrians, and so on. Some of the less advanced countries such as Russia offered opportunities for foreigners with technical skills. Some of the more advanced, notably France, attracted cosmopolitans from all over Europe. But proletarian migration across international boundaries was not large. Such as existed was almost universally confined to neighboring countries with short distances involved. Small countries with long borders and close cultural connections with neighboring countries, such as Belgium and Switzerland, had relatively large numbers of foreigners. Often permanent migration began as seasonal movements like those of Italians and Belgians into France and of Poles into Germany, movements which left a rising increment of permanent migrants.

A considerable degree of foreign immigration was early attracted to France in connection with industrialization and the construction of railways. A net balance averaging about 30 thousand a year flowed into France from 1870 to 1900, chiefly from Italy and Belgium. Later the industrial growth of Germany brought about the largest intra-European migration across national boundaries prior to 1914. Industrialization gained momentum after the establishment of the German Empire and by 1890 exercised a powerful attractive force on nearby countries of lower standards of living. Between 1880 and 1910 over a million foreigners settled in Germany, almost half of these in the single decade 1900-1910. The majority were Austrian subjects: chiefly Poles from Galicia who went to the industrial establishments in Silesia, in Saxony, and in the Rhineland, and Sudetens who went to German areas neighboring on Bohemia. Lesser complements came from Russian Poland, from Italy, and from the Netherlands.

France and Germany were the only European countries having more than a million aliens prior to the First World War. In the continent as a whole there were approximately five million Europeans living outside the country of their political allegiance. Only about one out of every hundred Europeans was a political alien in his place of residence. There was considerable movement of people back and forth across international boundaries but the net residue of international migration was small as compared with emigration overseas.

The First World War resulted in a large movement of aliens back to the countries of their origin. Military conscription, the disruption of trade, and the disabilities of alien status con-



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tributed to a substantial backwash from earlier migrations. Military operations caused a flood of refugees, some of whom crossed international boundaries, especially into neutral countries. However, little of this migration was permanent; most of the refugees returned to their former homes after the war.

The peace, rather than the war, caused the greatest permanent displacement of population. Changes in international boundaries resulted in large movements from the ceded territories, composed of government officials, persons dispossessed of their property, and others who had little future under the new regimes. These were supplemented by forced population exchanges in Eastern Europe with the objective of securing greater ethnic unity in the new states.

After the war, migration was subjected to an increasing number of restrictions, but nevertheless grew to larger proportions than it had in prewar days. Its character also changed. The international trading communities, faced with the rise of tariffs and economic nationalism, did not draw larger numbers of foreigners. The new migrant was more likely to be a laborer, less likely to be a technician or a business man. Migration was less diffused and had less the character of an exchange of population. Countries of emigration and immigration were more sharply differentiated and relatively few countries accounted for most of the migrants.

### *Historical Patterns of International Migration as Measured by Place-of-Birth and Nationality Statistics*

Though the larger currents of migration are obvious from non-statistical sources, official statistics cover very little of the total accurately. In many cases direct statistics on overland migration are nonexistent, and often cover only the last few years where they do exist. In almost all cases they are seriously defective owing to the difficulties of control. Because of their inadequacies and because of the limited coverage it is impossible to obtain an accurate picture of international migration from this source alone.

In the absence of adequate direct statistics international migration may often be estimated from census reports. Thus where the information is given, the number of foreign-born persons in a country is an important clue to the net volume of immigration, since it represents the number of all immigrants minus those who have died or left the country. The direction of immigration may be determined by the countries of birth given. The net cumulative balance of all migration between any two countries may be ascertained by comparison. Thus a larger total of Swedish-born in Denmark than of Danish-born in Sweden indicates a net movement to Denmark from Sweden. The method is clearly defective in that it indicates neither the total volume of movement nor the time at which migration occurred. Unfortunately the latest usable data for this method are included in censuses taken around 1930. But it is the only statistical method available for most of Europe indicating the net residue and direction of migration.

The net results of international migration thus computed are shown in Figure 26 and detailed in Appendix III, Table 4.<sup>1</sup> Owing to difficulties of representation only those movements

<sup>1</sup> In some countries tabulations on the place of birth are not made. For these countries it was necessary to use statistics of political nationality, which naturally differ from those of place of birth. Nationality is a very rough measure of migration. On the one hand, foreign nationality may arise from other facts than foreign birth. Thus where *jus sanguinis* rules of nationality prevail, the children of foreigners, though native, may be considered foreigners. On the other hand, the foreign-born may acquire native citizenship, and if they are the children of citizens they will often not be considered political aliens despite foreign birth. In general the number of foreign nationals is smaller than the number of foreign-born. Hence, where the place-of-birth statistics of one country are compared with the political nationality statistics of another, there is a bias in the direction of apparent movement from the latter to the former. Only nationality statistics were usable for Czechoslovakia, Estonia, France, Italy, Lithuania, Netherlands, Norway, and Portugal. Of these countries only France and the Netherlands have a large amount of immigration; the error involved in using nationality statistics for the other countries is small. In the case of France naturalized citizens were added to political aliens to obtain a figure more closely approximating the

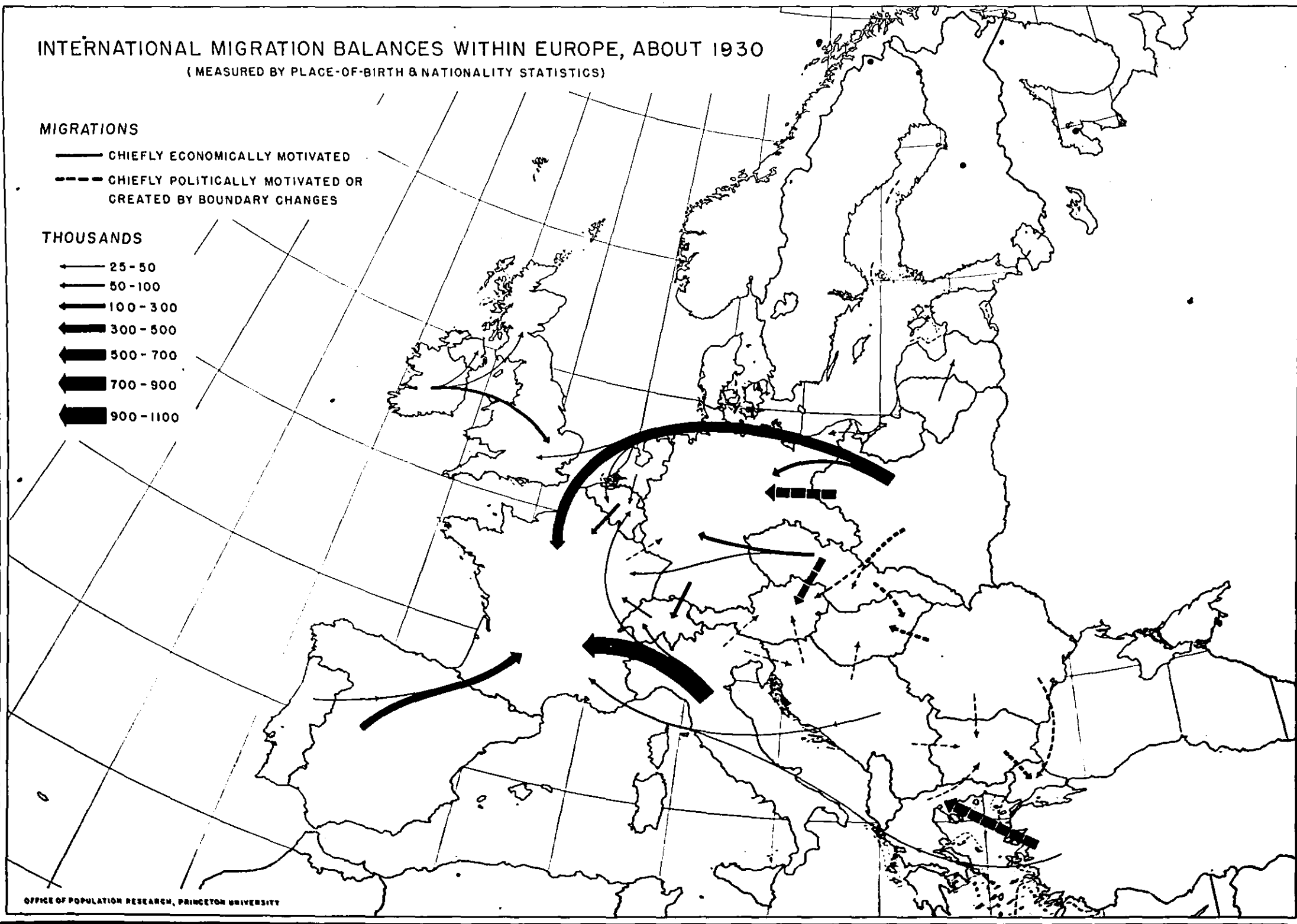
**INTERNATIONAL MIGRATION BALANCES WITHIN EUROPE, ABOUT 1930**  
 (MEASURED BY PLACE-OF-BIRTH & NATIONALITY STATISTICS)

**MIGRATIONS**

- CHIEFLY ECONOMICALLY MOTIVATED
- - - - CHIEFLY POLITICALLY MOTIVATED OR  
CREATED BY BOUNDARY CHANGES

**THOUSANDS**

- ← 25 - 50
- ← 50 - 100
- ← 100 - 300
- ← 300 - 500
- ← 500 - 700
- ← 700 - 900
- ← 900 - 1100



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**FIGURE 26.** Net balance of international migrations within Europe as determined from place-of-birth and nationality statistics in censuses around 1930 (including only those movements with a balance exceeding 25,000 persons).

involving a balance of 25 thousand persons are shown, and the volume of net migration is indicated on the same scale as in Figure 25, showing the sources of overseas emigration.<sup>2</sup>

Comparison with Figure 25 reveals immediately the far greater numerical results of overseas as contrasted with international migration within the continent. Overseas migration has resulted in several times as large a net movement of people, though of course in the case of international migration within Europe the net balance of migration represents a much smaller part of the total exchange of population.

On the map an attempt is made to distinguish two major types of international migration. The first of these, indicated by solid lines, represents "normal" peace-time migrations across international frontiers; as mass phenomena these have been motivated primarily by economic considerations. The second, indicated by broken lines, includes those movements that either have been caused by boundary changes or that derive their international character from them.

#### *The Balance of "Normal" International Migration*

"Normal" international migration in Europe has largely been a movement to France. For so many generations the cultural center of Europe, France has long exercised a magnetic influence on the intellectuals and upper classes of all European countries. More recently, and for somewhat different reasons, the attraction of France has spread to the poorer classes in overcrowded countries of limited economic opportunity. The slow population growth of France in relation to that of her neighbors has created a vacuum drawing large numbers of foreigners from these countries. In recent years the pull of France has reached to Eastern Europe, and France has become as important a country of immigration as those of the New World.

The extent and pattern of foreign infiltration is indicated in Figure 27, showing the proportion of aliens and naturalized citizens by departments in 1911 and 1931.<sup>3</sup> In general, foreigners have clustered in the border departments nearest the country of their origin. In France foreigners are mostly Spanish in the Southwest and Italian in the Southeast. Spaniards are most numerous in the Pyrenees and the western section of the Mediterranean littoral, with lesser colonies in the Rhone industrial region. Italians predominate in Savoy, in the Rhone Valley, and on the Riviera. Belgians are almost entirely restricted to the North, and especially

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foreign-born. In the case of Germany it was necessary to use a mixture of sources, including data from the 1933 census on aliens and from the 1925 census on place of residence of persons born before 1914.

Further difficulties are introduced by inaccuracies in the reporting of place of birth. Where boundaries have changed, there is often considerable and understandable confusion on the part of respondents. Thus Czechoslovakian place-of-birth statistics are rendered unusable because a very large number of natives reported themselves as born in Austria (as, historically, they were). Though this particular case probably also reflected the political sentiments of certain elements in the Czechoslovakian population there is undoubtedly often a great deal of honest confusion in census reporting of birthplace.

In view of the numerous sources of inaccuracy the volume of migration in Figure 26 is scaled in general classes within which the various movements probably fall.

Migrations in and out of the Soviet Union are not shown because there is no method of checking the net results of population exchanges incident to the revolution and to changes in the boundaries of Russia. There was a movement of considerable importance from Russia into eastern Poland, but there is no means of accurately measuring its volume. Colonies of Russian émigrés were found in many countries of Europe, the largest being in France. In 1931 there were 83 thousand Russians in France, the majority living in Paris and its suburbs. There were 450 thousand Russian-born living outside the Soviet Union, aside from those in the Baltic States, Poland, and Rumania, for which there are no adequate data.

<sup>2</sup> The two maps are not strictly comparable because in Figure 25 no allowance is made for persons living in Europe but born overseas. However, as compared with native Europeans living overseas these latter are negligible in number and would not have significantly affected the results if they had been subtracted. In any event these would have been more than balanced by the number of European-born living in overseas countries that were not included as overseas destinations on the map.

<sup>3</sup> Data on the numbers and proportions of foreigners and naturalized citizens, together with their countries of origin, are given in France, *Statistique générale, Résultats statistiques du recensement général de la population effectué le 8 mars 1931*, Vol. I, Part 5. *Etrangers et naturalisés* (Paris: Imprimerie nationale, 1936).

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to the border department of Nord. Though more scattered, Poles are most numerous in the industrial North and particularly in the two northern-most departments of Nord and Pas-de-Calais. German elements are almost exclusively in Alsace-Lorraine. All immigrant nationalities are numerous in the Paris area, where there were over 500 thousand foreigners and naturalized aliens in 1931.

The Italians are the largest immigrant group. There were over 900 thousand Italians resident in France in 1931. Poles numbered over half a million, almost all of whom came to France in the interwar period. There were over a third of a million Spaniards, over 300 thousand Belgians,

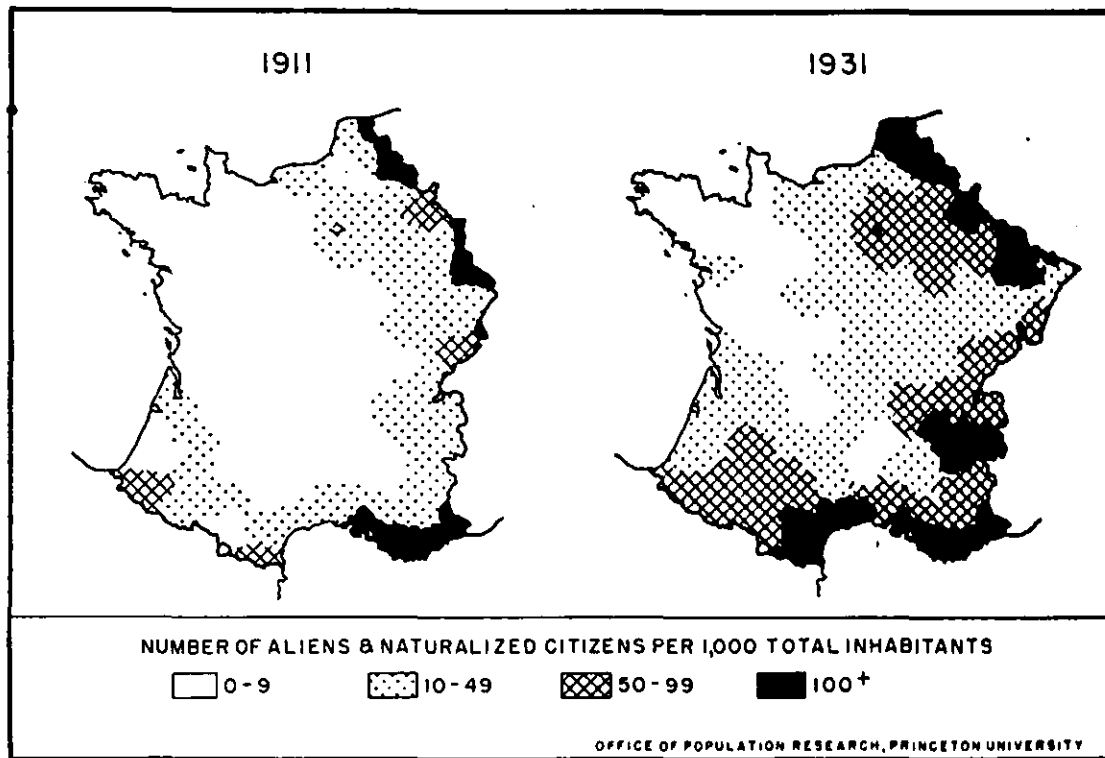


FIGURE 27. Persons of foreign origin per 1,000 total inhabitants in France, 1911 and 1931.

and substantial numbers of every important European nationality. Many strains have been poured into modern France. France has been strengthened in numbers by migration from abroad, but at the expense of having to assimilate diverse alien elements.

As compared with France other European countries of immigration have drawn rather small numbers. In her period of rapid industrialization and rising prosperity preceding 1914, Germany temporarily replaced France as the leading country of immigration. After the war, however, inflation and unsatisfactory economic conditions led to a cessation of immigration, except for the refugees from ceded territories. The foreigners in Germany in the middle of the interwar period were to a large extent either ethnic Germans or remnants of the prewar immigration of non-German foreigners.<sup>4</sup>

Belgium and Switzerland have played an intermediate role as regards international migration. Both have drawn population from other countries and lost migrants to France. Belgium has substantial gains from Poland, Italy, and the Netherlands. More than any other country except France she has attracted migrants from widely scattered countries in Eastern Europe. However, this gain has largely been counterbalanced by net emigration to France. In 1930

<sup>4</sup> Though there were large movements of seasonal agricultural workers from Poland into eastern Germany during the 'twenties.

there were about 150 thousand more foreign-born living in Switzerland than Swiss-born living in the remainder of Europe, but immigrants to Switzerland are chiefly drawn from neighboring Germany and Italy.

As the greatest trading nation of the world, the United Kingdom has also attracted foreigners to its large international colony. But aside from a long and continuous history of large immigration from Ireland there has been little mass migration to Britain. The largest net foreign immigration, amounting to some 40 thousand, came from Poland. Though the British standard of living has been high, rapid population growth and Britain's insular position appear to have acted as a bar to large immigration from the continent. Similarly Scandinavia has attracted few immigrants despite high living standards. Of the Northern countries only Latvia has drawn a significant amount of immigration. Its proximity to areas of population pressure in Lithuania and Poland has resulted in some immigration from these countries, though much of the movement from Poland is of a seasonal character.

#### *The Balance of International Migrations Incident to Boundary Changes*

Migration movements within Central and Eastern Europe have generally differed from those affecting Western and Northern Europe. The latter have represented a movement from countries of low standards of living and often agrarian overpopulation to countries of slower population growth and greater economic opportunities. International migration, like overseas migration, has to a certain extent served as a safety valve for the relief of acute population pressure in critical areas. In a modest way it has tended to equalize differences in economic opportunity and population growth. Some migration of this character has also occurred within Central and Eastern Europe, especially as regards Austria and Bohemia, but recent international migration within Eastern Europe has usually been the creation of political changes rather than a response to greater economic opportunities in other countries.

Every cession of territory incident to the First World War was followed by a flood of refugees from the ceded territories. This flow of refugees was at first made up of government officials, of teachers, of railway workers, and other persons whose fortunes were connected with the old regime. These were as a rule followed by dispossessed property owners and persons whose businesses were disrupted by the realignment of tariff and other barriers. Finally the new governments in some cases made both direct and indirect efforts to force out the members of the old dominant group in order to weaken any claim or effort for re-establishment of the old order.

The largest migration of this kind came to Germany from the areas ceded to Poland. Over half a million persons were counted in the German census of 1925 who had been resident in these areas in 1914. From Alsace-Lorraine had come 132 thousand more, and the total for the ceded areas amounted to 770 thousand. Other German nationals had flocked home from abroad and a substantial number of ethnic Germans had migrated to Germany from other European countries. In 1925 there were over a million German nationals living in Germany who had been resident outside the reduced boundaries of the Reich in 1914. On the other hand many foreigners had returned home; through the combined effects of death, naturalization, territorial cession, and emigration, the number of foreigners had fallen very much.

Prior to the war of 1914-1918 the position of Austria proper attracted large numbers of migrants from other parts of Austria-Hungary. In its growth as a great capital and commercial center, Vienna drew large numbers of the many races of the dual monarchy. Sudeten Germans, Czechs, Slovaks, Poles, and Jews were all heavily represented in the population of Lower Austria. Though much of this migration required the crossing of linguistic frontiers, it was

nevertheless internal migration when it occurred. Many of the earlier migrants remained after the First World War, and thereby became "foreign-born." These were later supplemented by war refugees from Galicia and peace refugees from the large ceded territories. In the middle of the interwar period over 10 per cent of the Austrian population was "foreign-born" from the Succession States and ceded territories of the Austro-Hungarian Empire. Hungary likewise was host to a great mass of "foreign-born" from lost territories. Over 200 thousand came from Czechoslovakia, about 200 thousand more from Rumania, and another 100 thousand from Yugoslavia.

Though the migrations incident to the breakup of the Austro-Hungarian Empire were indirectly promoted by governmental action, these were generally carried out by individuals on their own initiative. The prewar migrations, which were chiefly internal rather than international, were comparable to those in Western Europe in their economic causation, and even after the collapse of the Empire much of the movement to Austria and Hungary was inspired by absence of economic opportunity under the new regimes. In the Balkans, on the other hand, most of the migration took place at official instigation for political purposes and with little regard for economic considerations.

The largest exchange of populations in the interwar period was brought about by the Treaty of Lausanne of 1922, terminating Greco-Turkish hostilities. By this treaty Greece was compelled to accept the forced emigration of all Greeks in Turkish territory with the exception of those in the City of Constantinople. In return Turkey accepted the forced emigration of all Moslems from territories remaining to Greece. By this compulsory exchange over a million Greeks were transferred from Asia Minor and eastern Thrace, particularly to Macedonia and the section of Thrace remaining to Greece. Correspondingly, some 400 thousand Turks were expelled from Greece. Over 50 thousand Greeks were further "repatriated" from centuries-old colonies in southern Russia and a substantial number came from Bulgaria. As the result of these movements and the additional small increments from Albania and Yugoslavia, Greece gained a balance of over half a million through migration. Over a sixth of the Greek population were born abroad and came to Greece in the 'twenties as refugees.<sup>8</sup>

Consequent to her defeat in the Balkan Wars and in the First World War Bulgaria has also had to play host to large numbers of her nationals ejected from neighboring territories. Probably as many as 200 thousand Bulgars and Macedonians were evacuated from areas ceded to Greece as the result of the Balkan Wars and the Treaty of Neuilly in 1919. Some 50 thousand Bulgars crossed the border from Rumania, especially from southern Dobrudjan territories lost in the Balkan Wars. Another 50 thousand came from Macedonia and western Bulgarian areas annexed to Yugoslavia. However, because large numbers of Turks were expelled, Bulgaria had comparatively little net gain through the various exchanges of population.

The Turkish and Moslem element in the Balkans, the precipitate of centuries of Moslem rule, has long been in the course of liquidation through emigration. By the middle of the interwar period something like a million Turks had been "repatriated" from the Balkans, many of these being settled in areas from which the Greeks had been ejected. Yugoslavia and Rumania, as well as Greece and Bulgaria, contributed to this "repatriation" of Moslems, though they did not immediately enter into formal arrangements for population exchange. In addition, Yugo-

<sup>8</sup> The exchanges of populations affecting Greece, Bulgaria, and Turkey are described in S. P. Ladas, *The Exchange of Minorities: Bulgaria, Greece, and Turkey* (New York: Macmillan, 1932); in Sir John Hope Simpson, *Refugees: A Preliminary Report of a Survey* (New York: Oxford University Press, under the auspices of the Royal Institute of International Affairs, 1938); and in C. A. Macartney, *National States and National Minorities* (London: Oxford University Press, under the auspices of the Royal Institute of International Affairs, 1934), pp. 430-449.

slavia and Rumania witnessed an outflow of Hungarians and some Austrians from areas acquired after the First World War.

*The Interwar Years: Time Period Analysis*

The foregoing discussion relates to the net effects of migration movements involving persons still alive in the middle of the interwar period. Though it includes the net results of much of the interwar migration the method utilized does not segregate migration by time of occurrence and fails to include the migratory movements of the 'thirties. Supplementary information makes it possible to determine more directly the movements occurring in the two decades between the wars, though it does not admit precision in measuring the exact numbers involved.<sup>6</sup> In the succeeding paragraphs an attempt is made to summarize the international migratory movements within Europe in the interwar period, drawing on all available statistical materials.

Migration between the two wars falls into two distinct periods, roughly corresponding to the two decades covered. In each decade there was one set of migratory currents put in motion by political motivations and another induced (or inhibited) by economic differentials and fluctuations in economic opportunity. In chronological order of occurrence over the two decades these were: (1) movements incident to postwar boundary settlements, (2) "normal" migrations of the 'twenties, (3) depression migrations of the 'thirties, and (4) migration movements associated with the rise of Nazi power in Europe.

*Movements Incident to Postwar Boundary Settlements*

Some five million persons migrated across international boundaries as the result of the political changes following the First World War. As mentioned above, the permanent effect of these moves outranks those directly caused by the war. The latter involved a larger number of people but for the most part proved to be temporary, since war refugees generally returned to their place of origin as soon as it was possible to do so. On the other hand, all the defeated powers received many thousands of their nationals from ceded territories in the first years of the peace and few of these refugees returned to their former homes. These movements were supplemented in the early 'twenties by a large volume of refugee migration from Russia and by the great exchanges of population between Greece and Turkey. The defeated powers (including Germany, Austria, Hungary, and Bulgaria) appear to have received a net gain of close to two million from their respective lost territories. The various transfers involving Greek and Turkish populations ultimately affected as many as a million and a half more.

<sup>6</sup> Three methods of measuring migration in given time periods are available:

(1) For those countries with repeated censuses and accurate vital statistics it is possible to obtain net migration for any intercensal period by differencing population change and natural increase. Thus if natural increase in the intercensal period exceeds population growth there must have been a net balance of emigration equal to the difference between the two. If the situation is reversed and population growth exceeds natural increase, there must have been an inward balance of population movement to make up the difference.

In countries where the vital statistics are incomplete, as is often the case in Eastern and Southern European countries, this method of estimating the balance of migration is unsatisfactory. For supplementary information on the direction and origin of migration and for countries with defective vital statistics two other sources of statistical information are sometimes available.

(2) Direct statistics on persons crossing international boundaries. Though these are generally incomplete and inaccurate, they give clues as to the direction and magnitude of migration.

(3) Indirect statistics of countries of immigration on the number of aliens, naturalized citizens, and foreign-born by country of origin at successive censuses. Thus an intercensal increase in the number of Polish aliens and naturalized French citizens of Polish origin in France may appropriately be construed as evidence of Polish immigration, and when allowance is made for the deaths of aliens and naturalized citizens in the intercensal period reasonably accurate quantitative estimates of net immigration are possible. Owing to the intricacies of nationality determination and to inaccuracies arising from misrepresentation, such data must be used with caution, but may serve as valuable evidence, especially where other information is lacking.

Though less than half a million Russian émigrés were recorded in European censuses the total refugee movement from Russia in the early 'twenties was undoubtedly much greater, since several of the most important neighbors of the Soviet Union did not record the number of Russians born outside their frontiers.

*Peacetime Migration in the 'Twenties*

The refugee migrations of the immediate postwar period were replaced in the 'twenties by the more normal peacetime movements motivated by economic considerations. The chief currents of international migration in the 'twenties, both overseas and continental, are depicted in Figure 28<sup>†</sup> and the average annual net gain or loss per 1,000 inhabitants through migration is indicated in Figure 29. The data thus charted are given in Appendix III, Tables 5 and 6.

The dominating feature of migration in the period, as in previous decades, was a westward movement, reflected by the migrations within the continent as well as by those flowing overseas. Much the larger part of overseas emigrants left for American destinations, while within Europe, western countries, and above all France, were the chief destinations of migrants except in those instances where the liquidation of minorities brought about forced migration.

As noted in the preceding chapter, intercontinental migration was on a much smaller scale than in previous decades. Nevertheless, overseas emigration continued to exceed net migration within Europe in importance when movements directly related to boundary changes were excluded. The overseas movement continued to be the predominant and most generalized "normal" migration. Every country in Europe, with the significant exception of France, lost some population to overseas countries. The movement was led by large contingents from Italy, Poland, and the British Isles, but the net balance of overseas emigration in the decade exceeded 25 thousand in the great majority of European countries. The movement was less in several of the smaller countries and reversed in France. France had a gain from intercontinental migration, owing to the immigration of French subjects from the African Empire; in 1931 there were over 100 thousand persons of African origin in France, most of whom came to France from North Africa in the 'twenties.<sup>‡</sup>

By contrast with intercontinental movements, migration within Europe was as important in the 'twenties as it had been earlier. Relative to the overseas current, it was more important in the 'twenties than for many decades past. Increasingly France and other countries of Western Europe were replacing overseas countries as the objectives of migration. France received a net balance of almost two million immigrants in the 'twenties, thereby becoming the second destination of European migration after the United States. In the late 'twenties, and following the application of restrictive measures in the United States, France took the lead. In the decade over a million new residents came from Poland and Italy alone. Spain apparently supplied well over 100 thousand and there were balances of 25 thousand or more from Portugal, Czechoslovakia, Yugoslavia, Turkey (principally Greek refugees), and Russia (refugees). Greater or lesser increments came from every European country with the possible exception of Belgium. Both French and Belgian migration data report net Belgian immigration into France, but French censuses show declines of persons of Belgian origin (aliens and naturalized) in the decade.

<sup>†</sup> For purposes of comparability the scale in Figure 28 is the same as that in Figures 25 and 26 showing total net residue of overseas and in intracontinental migration, though it should be noted that comparability is limited by the different methods of computation. The earlier maps refer to the net residue and balance of all migrations, regardless of time of occurrence, as determined from place-of-birth and nationality statistics. The data of Figure 28 refer to the balance of migration in a specific time period (i.e., roughly 1920-1930), as determined by changes in the numbers of foreigners and foreign-born (using the latter where possible and making allowance for deaths in the period under consideration). This source was supplemented and checked where possible by direct statistics of migration movements.

<sup>‡</sup> Many of these were soldiers, and hence not technically immigrants.



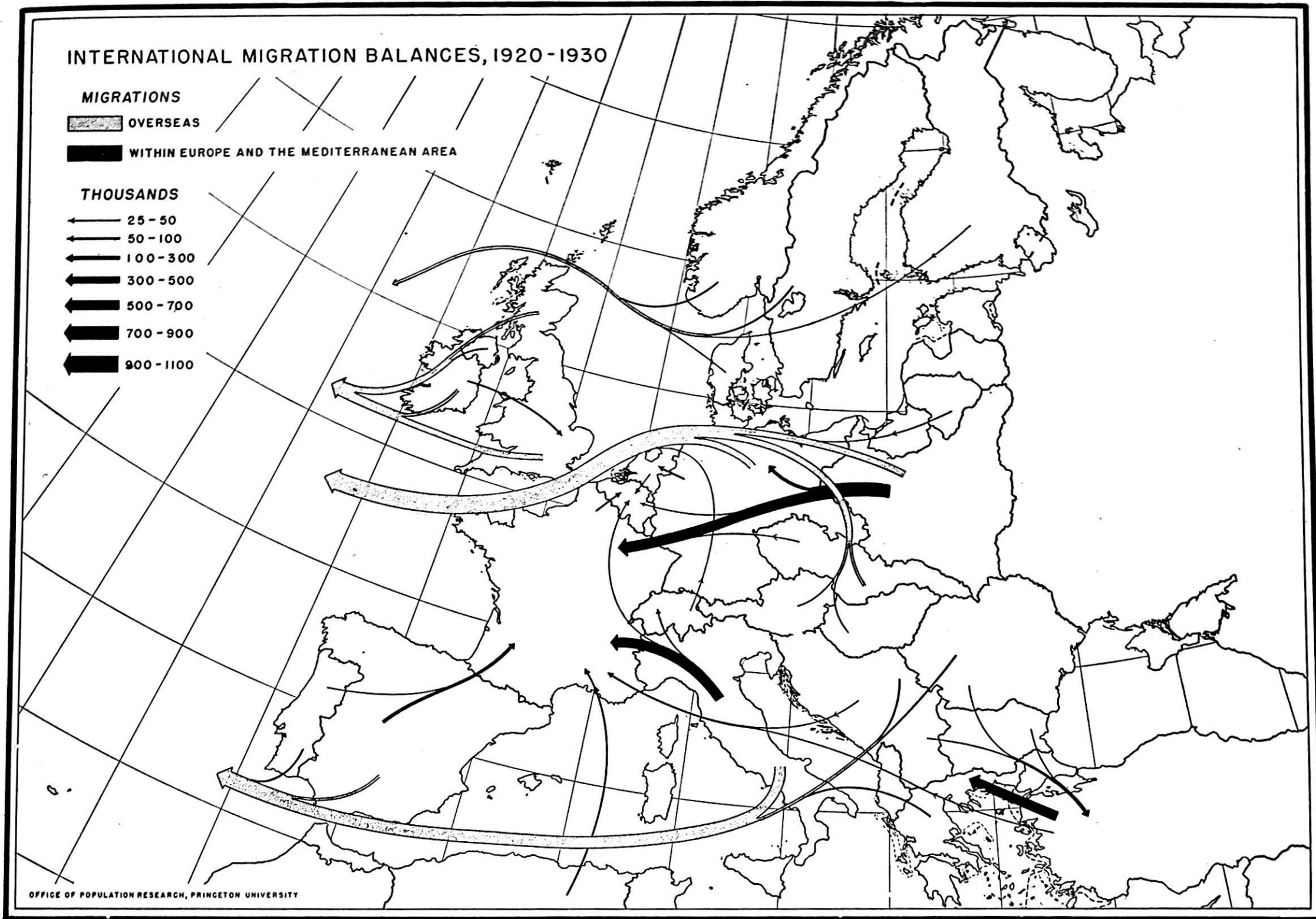


FIGURE 28. Net international migration of European countries during the 'twenties (including only those movements with a balance exceeding 25,000 persons).

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Besides France the only nations to experience a net inward balance of voluntary migration were the Low Countries. Belgium showed a net gain of 140 thousand through migration, the chief sources being Poland and Italy, but with greater or lesser contributions from almost every other European country. An additional factor was the return movement of Belgians and their children from France, which offset the effect of new emigration to that country. The Netherlands had a small inward balance; immigration from Germany and Central Europe was largely cancelled by emigration to Belgium and overseas.

During the 'twenties, two other western countries drew significant numbers of migrants from countries of lower standards of living, namely, England and Switzerland. In addition to its large trading community England in the 'twenties attracted an appreciable migration of Poles

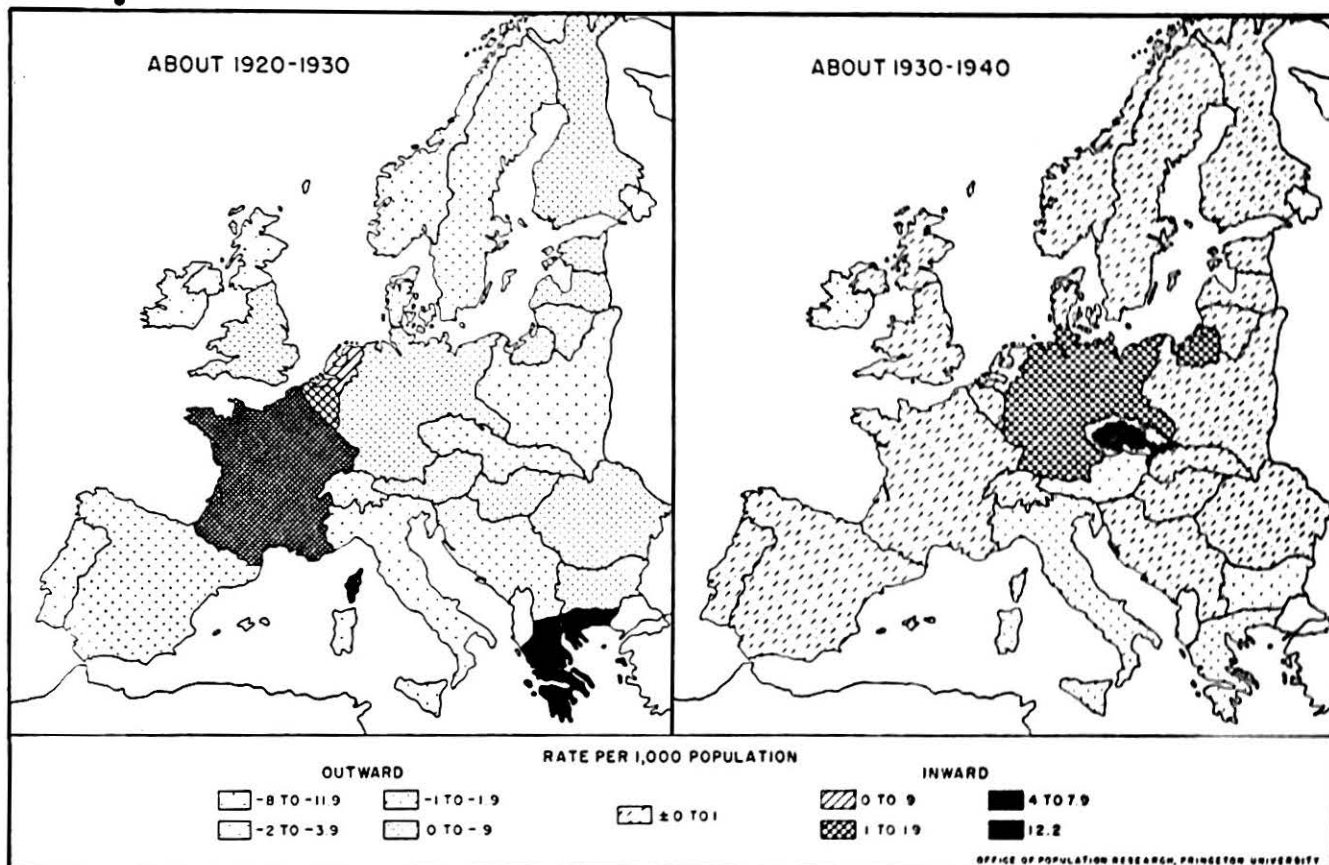


FIGURE 29. Average annual gain or loss through migration per 1,000 inhabitants, 1920-1930 and 1930-1940.

to the London area. But this movement, combined with that of Russian refugees, probably did not exceed 75 thousand. England also received considerable migration from other parts of the British Isles, but because of her large overseas emigration lost some 150 thousand in over-all balance. Scotland and Ireland continued in their historic roles as countries of large emigration. Scotland sent out a net balance of almost 400 thousand in the decade, divided in destination between England and overseas. Ireland (North and South combined) lost even more, chiefly to the same destinations.

As in previous decades there was an active interchange of population across the borders of Switzerland. But Switzerland appears to have gained less from these movements than in earlier periods and lost through net emigration to France and overseas.

As noted above, Germany did not attract migration in the 'twenties as she had in prewar days. In the first postwar years over a million persons streamed into the country from ceded

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territories, but the net gain of population was much smaller. Some of the refugees continued on to overseas destinations, and the balance of immigration was further reduced by the repatriation of aliens, notably of Poles. A sizable number of prewar Polish immigrants into the Rhineland moved on into France.

After the immediate postwar adjustment, the migration movements across German boundaries were relatively small. There was some immigration of Sudeten Germans, a trickle of ethnic Germans from scattered German colonies in Eastern Europe, and a modest inward flow of Jews, particularly from Poland, but none of these movements reached large proportions after the first postwar rush. On the other hand, there was a considerable move of Germans into the Netherlands and especially overseas, which produced a negative balance during most of the 'twenties.

The dismemberment of the Austro-Hungarian Empire resulted in the disruption of earlier migratory trends in Central Europe. As indicated above, Austria, and particularly Vienna, had drawn many migrants of varied ethnic origin from all parts of the Empire. Postwar poverty and the erection of political barriers put a stop to this migration, and after the mass flights from the ceded areas there was little movement of population across international boundaries. In general the area was one of emigration to France and overseas, the chief sources of migrants being the Slavic elements of the old Empire. Czechoslovakia had a net outward balance of 200 thousand in the decade, with especially heavy contributions from Slovakia and Carpathian Russia. Yugoslavia probably lost a similar amount, principally from Slovenia, Croatia, and Dalmatia, areas formerly under Austro-Hungarian administration. Above all Poland, and particularly former Austrian Poland, sent out a very large wave of emigration. Apparently there was a loss of almost a million persons in the decade. After Italy the crowded Carpathian lands of southern Poland were the greatest source of emigration in Europe during the 'twenties.

Italy was the outstanding country of European emigration both before and after the First World War. According to Italian statistics the net emigration of the 'twenties amounted to over 1.3 million, three-quarters of a million being directed to the continent, and almost 600 thousand overseas. Though emigration was on a smaller scale than in prewar days (in the single year of 1913 Italian emigration reached the astounding total of 873 thousand) continental migration was almost as great as before, the reduction being largely in overseas migration and especially in that to the United States. Following the restrictions imposed by the United States, the current of Italian emigration was increasingly directed to continental rather than to overseas objectives. Within the continent, migration formerly directed to Switzerland and Germany was now transferred to France; the latter country absorbed much the greater share of the continental balance from Italy. In the 'twenties the movement of Italians into France was alone equal to the total overseas migration from Italy.

In the Balkans there was little migration activity aside from forced population transfers. The Balkan peasant, like his prototype throughout the ages, is loath to move. Only with the intrusion of modern influences were there the beginnings of voluntary emigration on a large scale. There was a general movement overseas, and a more specialized migration of Greeks (including refugees from Turkey) and Yugoslavs to France.

After the initial flood of refugees, the Communist Revolution brought about a cessation of large-scale emigration from Russia. In the prewar decade emigration from Russia averaged over 200 thousand per annum directed mostly overseas and particularly to the United States. By this standard, legal postwar emigration from the Soviet Union was a mere trickle and by 1925 it is probable that even illegal emigration had been reduced to a small stream. The rapid industrialization of Russia, the great population movements within the country, the improved

status of minorities and especially of Jews, governmental prohibitions against emigration—all combined to reduce both the general incentive and the opportunity to emigrate. Contrariwise, the Soviet Union attracted substantial numbers of skilled workers and technicians to further its economic program, but few of these could be regarded as permanent immigrants.

### *The Depression Years*

International migration within Europe dwindled with the onset of economic depression. Owing to their relatively favorable economic position France, Belgium, and Switzerland continued to attract immigration in the early 'thirties, especially from Italy. But by the middle 'thirties chaotic economic conditions and political barriers had reduced international migration to a small fraction of its former size. The traditional streams of migration were reversed so that France, for instance, lost over 100 thousand through emigration between 1931 and 1936. Polish industrial workers in northern France proved particularly vulnerable to the decline in economic activity. Consequently there was a substantial balance of return migration from France to Poland.<sup>9</sup> But on the whole the return movement affected few of the earlier migrants and the net balances of gain or loss through migration were small. On the one hand, the earlier migrants were loath to give up a foothold won in the land of their adoption. On the other, the depression provoked a longing for security which reflected itself in the acceptance of a pittance at home rather than of the very real dangers of seeking a job in a strange place. This natural reaction was re-enforced by the active intervention of governments in restricting the opportunities for work available to aliens. In general, the 'thirties were a decade of "sitting tight."<sup>10</sup>

The most significant migrations of the 'thirties were those associated with political rather than with economic motivation. The large-scale Jewish emigration to Palestine has been mentioned in the preceding chapter. A parallel, but less publicized, movement was the "repatriation" of Turkish elements in the Balkans. From South Serbia, from the Dobrudja, and especially from southeastern Bulgaria and Thrace, there was a substantial stream of emigrants to Turkey. The liquidation of the old Turkish colonies in the Balkans has been favored both by the Balkan governments and by the Turks themselves.

A third Mediterranean movement was the increased migration of Italians to Italian colonies in Africa. An important phase of Fascist policy was the development of the Italian Empire both intensively and extensively. Both approaches required colonists to implement Italian development of the Empire. A ready source of such colonization was assumed to be available among potential emigrants who would otherwise go overseas to foreign lands. A diversion of this stream of emigration to the Italian Empire would both prevent the denationalization of these emigrants and Italianize the colonies. It would serve to relieve overpopulation at home and to populate the undeveloped African territories and integrate them with the homeland. Up to 1930 these efforts had generally been unsuccessful. At that time there were only 50 to 60 thousand Italians

<sup>9</sup> Because industry is more at the mercy of cyclical depressions than European agriculture, the return movement was larger from industrial than from agricultural migrations. Cf. International Labour Office, *The Migration of Workers* (Series O, No. 5), pp. 16-17.

<sup>10</sup> The precise measurement of international balances of migration in the 'thirties is hampered by the fact that many decennial censuses scheduled for 1940 were postponed owing to the war. Where such censuses were taken, their results naturally reflect changes incident to the war as well as those occurring in the 'thirties. However, every evidence, direct and indirect, points to a great reduction of international migration aside from movements associated with the Nazi rise to power. There is also considerable evidence that the backwash or "contra" migration was much smaller than is often supposed. Thus the migration loss indicated by a comparison of the 1931 and 1936 French censuses (cited above) may be compared with a net gain of almost two million in the decade 1921-1931. The French evidence is corroborated by the direct migration statistics of Poland and Italy, which indicate relatively small return movements, especially in Italy, as contrasted with the large original migrations. It is clear that the reduced balances of migration flow, not from a great counterwave of return migration, but from the cessation of past currents of "pro" migration.

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resident in the Italian Empire, these being chiefly concentrated in the towns of Tripoli and Bengasi. Intensive efforts at colonization during the 'thirties raised these numbers considerably and large numbers of temporary workers were further brought to Africa in connection with the prosecution of the Italo-Ethiopian War. In the decade as a whole close to 400 thousand civilian Italians went to Africa. More than half of these had returned to Italy by the end of the decade: the increase of the resident Italian population in Libya was only 85 thousand and at the time of Italian entrance into the Second World War there were only 60 thousand Italian civilians in East Africa. This movement, scattered through a decade, clearly did not serve as a complete alternative to other emigration, which netted a loss of over a million in the 'twenties, despite overseas restrictions on Italian immigration.

A further migration associated with political disturbance was the flight of Spanish Loyalist refugees across the French border following the defeat of the Republic in 1938. The total number of Spanish refugees, civilian and military, amounted to 450 thousand; but over 300 thousand of these had left France by the end of 1939, 20 to 25 thousand for Latin America. Of those who remained some had found employment and become integrated in the economic life of France; but the majority were still supported by the French government. Following the Franco-German armistice several thousand were sent to North Africa for labor service. A few thousand found their way to Mexico with the assistance of the Mexican government. How many will permanently remain in France is impossible to foresee.

The economic revival of the later 'thirties brought about some resumption of the old currents of migration from Eastern Europe to France, but these were submerged in importance by the migratory movements growing from the rise of Nazi power in Europe. Aside from migration affecting Germany and annexed areas the total movement and net balance of migration were generally much reduced in the 'thirties (Figure 29).<sup>11</sup>

### *Migration and the Rise of Nazi Power*

The accession of Hitler to the German Chancellorship in 1933 was early followed by persecution of the Jews, and the flight of Jews from the Reich. Successive and rising waves occurred after the promulgation of the Nuremberg decrees in 1935, the annexation of Austria, and the pogroms of November, 1938. The exact number of Jewish refugees has not been determined. The number of confessional Jews in the old Reich declined by 281 thousand between the censuses of 1933 and 1939.<sup>12</sup> Some of this decline may be attributed to the natural decrease of

<sup>11</sup> Migration balances for the 'thirties were obtained by intercensal comparison for countries with recent censuses (cf. method 1 in footnote 6). In the cases of Belgium and the Netherlands, data from the population registers were used. For the remaining countries, including the United Kingdom, Ireland, Norway, and most Eastern European countries, it was necessary to rely on the less satisfactory evidence of direct migration statistics.

Owing to the inadequacy of the materials it was sometimes not possible to determine whether the true balance over the entire decade was plus or minus, even though it is clear that the balance (whichever way it fell) was small. In these cases the countries were mapped in a special category  $\pm 0.1$ , which included the greater part of Europe.

<sup>12</sup> The reduction of confessional Jews in "Greater Germany" during the prewar Nazi period according to German census figures (as given in *Wirtschaft und Statistik* 21(9): 173-176, May, 1941) are as follows:

Area	About 1933 <sup>a</sup>	1939 <sup>a</sup>	Decrease	
			Amount	Per Cent
Old Reich	503,230	221,763	281,467	55.9
"Ostmark" <sup>b</sup>	194,988	84,213	110,775	56.8
Sudetenland <sup>c</sup>	23,394	1,638	21,756	93.0
"Greater Germany"	721,612	307,614	413,998	57.4

<sup>a</sup> In the old Reich, excluding the Saar, 1933; in the Saar, 1935; in Austria, 1934; and in the Sudeten area, 1930.

<sup>b</sup> Interwar Austria plus adjacent districts of the Sudeten area annexed from Czechoslovakia to form the "Ostmark."

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the Jewish population arising from its low birth rate, its high average age, and the oppressive conditions under which it was compelled to live. There may also have been some successful evasion of being reported as a Jew in the later census. But the bulk of the decline must have resulted from emigration. Sir Herbert Emerson, High Commissioner for Refugees, estimated the movement from April, 1933, to July 1, 1939, at 215 thousand. Extending this to the outbreak of the war, Kulischer obtains an estimate of 226 thousand for the entire prewar period.<sup>13</sup>

In the earlier years Jewish refugees were able to make their way quite readily out of Germany to neighboring and overseas countries. Prior to the annexation of Austria, some 150 thousand refugees had gone to overseas countries, about 40 thousand of these having emigrated to Palestine. The application of extremely severe financial measures against emigrants made later migration very difficult. Jewish emigrants were unable to take any money or property of consequence over the border and their possessions in the Reich were subject to a 25 per cent flight tax and exchange disabilities. As a result Jewish refugees ultimately received only a small fraction of the value of their property. They were further hampered by measures taken in the receiving countries and by the restriction of immigration into Palestine.

Despite these difficulties the German occupation of Austria and the ruthless application of anti-Jewish measures in that country set in motion a new wave of refugees, which by the outbreak of war had attained a figure of 100 thousand. The further acquisition of the Sudetenland in October, 1938, put in flight 20 thousand more, or nine-tenths of the Jewish population of the area. With the occupation of Bohemia-Moravia a further flight occurred, including not only members of the native Jewish population but of Jews who had previously sought shelter there as refugees from other territories.

In total the prewar emigration of refugees from the Greater Reich may well have risen close to 400 thousand, including some 360 thousand Jews and a much smaller number of non-Jewish refugees. Of these around 200 thousand appear to have made their way to widely scattered overseas destinations. At the end of 1939 there were some 50 thousand Jewish refugees in Great Britain and in neutral countries, the remainder of over 100 thousand being in countries that later came under Axis sway.

Though it was properly of great humanitarian interest and concern, the distress migration of Jews before the war was overshadowed numerically by a larger movement of immigration to the old Reich. Between the censuses of 1933 and 1939 there was a net immigration of 502 thousand representing a total inward movement of at least 750 thousand.<sup>14</sup> German statistics do not provide the means of ascertaining precisely either the source of the migration or the time of its occurrence. But it is clear from indirect evidence that most of this movement occurred as the direct result of labor shortages in the Reich attending Hitler's rearmament program. When the Nazis came to power in 1933 there were fewer than 12 million employed (i.e., in jobs covered by the social insurance scheme) and about 6 million unemployed. When the war broke out there were 21 million employed and only 40 thousand unemployed in the same territory. Not only were practically all the unemployed absorbed in the economy but some 4 million

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<sup>13</sup> Sudeten areas annexed from Czechoslovakia minus South Bohemian areas annexed to the "Ostmark."

<sup>14</sup> In the 1939 census Jews were also listed by "race." Persons with the "equivalent" of three or four Jewish grandparents were classified as "Jews," those with two as "Grade 1 Mixtures," and those with one as "Grade 2 Mixtures." On this basis there were 330,892 Jews, 72,738 Grade 1 Mixtures, and 42,811 Grade 2 Mixtures in "Greater Germany" (*Wirtschaft und Statistik* 20(5-6) : 84-87, March, 1940).

<sup>13</sup> Eugene M. Kulischer, *The Displacement of Population in Europe* (Montreal: International Labour Office, 1943), p. 41.

<sup>14</sup> Taking into consideration the emigration of Jewish and other refugees. The figures in this and succeeding paragraphs were derived from official German sources, and especially from the 1939 census of "Greater Germany." Cf. *Wirtschaft und Statistik* 20(5-6) : 84-87, and 20(11) : 181-186, March and June, 1940.

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were added to the labor force over and above the increase in the size of the armed forces, which were not included in the social insurance statistics as "employed." The early years of Hitler power saw a rapid transition from a position of colossal unemployment to one of acute labor shortage.

Employment opportunities attending the armament boom in Germany naturally appealed first to the unemployed of neighboring ethnic Germans in Austria and the Sudetenland. It is not possible to distinguish movements occurring before and after annexation, but it is obvious that the total prewar migration from these areas to Germany proper must have been very large; the census and vital statistics indicate a combined net loss of well over 400 thousand in the decade. Even allowing for the emigration of Jews and of some Czechs from the Sudetenland there must have been a migration of at least 300 thousand non-Jews to Germany. There was an especially heavy movement from the Sudeten areas and particularly from these areas bordering on Saxony.

The net immigration of the Greater Reich between 1933 and 1939 amounted to 78 thousand, a much lower figure than that for the old Reich, since there was a heavy migration into the latter from the annexed territories. But taking into consideration the volume of refugee emigration, there must have been a total immigration into the Greater Reich of not less than 400 thousand. Of this number probably around a quarter of a million were of foreign nationality, the remainder being German citizens who returned from abroad.<sup>18</sup>

Of the aliens a large proportion must have been *Volksdeutsche* or ethnic Germans. Thus there was an increase of more than 30 thousand aliens from Danzig in the prewar Nazi period, almost all of whom were of German speech. Ethnic Germans were drawn to the Reich from widely scattered colonies throughout Europe, attracted both by economic opportunity and by Pan-German propaganda. Though individually small the cumulative streams from the many German colonies were considerable even before the mass repatriations made during the war. German citizens moved to the Reich for much the same reasons as the alien *Volksdeutsche*. The attractiveness of employment opportunities in Germany was also re-enforced by governmental edict for certain classes of citizens to return. Thus by May, 1939, Germans in certain occupational categories living outside the Reich (e.g., in England and the Netherlands) had been ordered to return to Germany or suffer loss of their German nationality. Since there were over a million German citizens living abroad it is not unreasonable to suppose that as many as 150 thousand returned to the Reich, the figure indicated as likely in the preceding paragraph (i.e., 400,000 less 250,000).

The migration of ethnic aliens to Greater Germany probably was not large prior to the war. Italian immigrants may have numbered as many as 50 thousand, but the remainder apparently included only a few scattered thousand of Dutch, Czechs, Slovaks, Hungarians, and Yugoslavs. The outstanding prewar movements associated with the rise of Nazi power in Europe were therefore, first, the flight of Jews from Greater Germany, the majority to overseas destinations; and secondly, the flow of ethnic Germans from the peripheries of German settlement and residence to the old Reich.

### *International Migration and the War*

The war set in motion tremendous movements of population. Successive conquests swept millions of refugees before them. Many hundreds of thousands were moved for defense reasons,

<sup>18</sup> The number of foreigners in the old Reich increased 133 thousand between 1933 and 1939. Allowing for the departure of 70 thousand Jewish aliens, there was an increase of about 200 thousand non-Jewish aliens. Since foreigners numbered 500 thousand in 1933 and these had a relatively high average age, some allowance must be made for deaths, the replacement of which requires new immigration. Including some allowance for deaths, the increase in the number of non-Jewish aliens arising from immigration may be very roughly estimated at a quarter of a million.

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or shuffled about to implement political purposes and new territorial arrangements established after the Axis victories. Many more were exiled to suit nationalistic desires for ethnic unity and racial "purity." Finally, millions were uprooted to feed the German industrial and war machine, plagued by a perennial shortage of manpower.

The ultimate effects of war displacements cannot be fully told at the present time. In his excellent survey of the situation up to the beginning of 1943, Kulischer estimated that at least 30 million had been transplanted or torn from their homes since the beginning of the war.<sup>16</sup> Assuming that this figure is correct, some five per cent of the population of Europe had been moved at that time. This number was undoubtedly greatly augmented in the later stages of the war, but was also greatly reduced soon after the collapse of Germany with the return of the great majority of refugees to their former homes.

The war displacements of population in Europe were of very different types. There was, first, the wholesale flight of refugees before advancing armies. This was the largest, but at the same time the most temporary, form of migration. Secondly, there was the deliberate resettlement or exile of populations for political purposes. Finally, there was a huge migration to satisfy the labor and defense requirements of the Axis war machine.

(1) Every campaign drove a host of refugees before it. In 1939 Poles fled the German advance, seeking shelter in the interior and ultimately in Rumania and the Soviet Union. Finns were evacuated in front of the Russian invasion in the north. The western campaigns of 1940 swept a great wave of refugees from the Low Countries across France to the unoccupied territories, a few of whom escaped farther to England, North Africa, and overseas. The Balkan campaigns of 1941 were very rapid and affected a less mobile population. Therefore they did not result in so large a direct flood of refugees. But in these and other invaded countries the flight of refugees was not necessarily terminated by occupation. Especially in the early stages clandestine flight to unoccupied or allied territory continued the earlier movement. Then, dwarfing all other refugee movements in sheer size, was the eastward tide of Soviet citizenry seeking refuge from the Nazi armies in the summers of 1941 and 1942. The retreat and final collapse of the Axis armies brought about a new refugee movement of collaborationists and of people seeking to escape the battle zones. Finally, to all of these were added the refugees from bombing and those ousted from various coastal areas for military reasons.

The sum total of refugees incident to military action was enormous. It has been estimated that in the Soviet Union alone 10 million were evacuated before the advance of the German armies. Though the great bulk of refugees have returned to their former homes each wave has left some remnants that have become established in the place of refuge.

Aside from the lasting effects of Jewish migrations, the strictly refugee displacements of the war itself are not likely to result in much permanent international migration. The refugee movements may nevertheless have profound effects on the future internal distribution of population within the countries most seriously affected. A plausible generalization is that refugee movements are likely to accelerate the process of urbanization. Refugees tend to congregate in the towns, which are the centers of communication. Once torn loose from the soil, refugees are more likely to become established in industrial and commercial pursuits than on the land. It is reported that in the Soviet Union this natural tendency is being fostered by governmental action calculated at retaining many of the refugees in the eastern regions to provide a labor supply for the industrialization of these undeveloped areas.

(2) The transplantation and exile of populations for political purposes were conducted on a larger scale than in any previous war. Some of the minority problems that have plagued Europe

<sup>16</sup> Kulischer, *op. cit.*, p. 163.



for many decades may have been liquidated effectively, if ruthlessly, by forced migration. The permanence of some of these forced migrations, such as those in the Balkans, hinges on the nature of the peace settlement. Others, and especially those involving the "repatriation" of ethnic Germans, will be permanent movements, though the ultimate destinations are not those originally anticipated by the German government.

The extremes of Nazi racial policies as reflected in forced migrations were of course demonstrated in the wholesale deportations of Jews to Poland and the U.S.S.R. About a million Jews appear to have been swept up in the Axis dragnet. There were some 225 thousand from the western occupied countries, 180 thousand from Germany and Austria, 185 thousand from Rumania, 400 thousand from Polish areas annexed to the Reich, and 90 thousand from Slovakia and Subcarpathian Russia.<sup>17</sup> Most of these were dumped into the ghettos or concentration camps of the Government-General and other eastern territories. Had the German plan come to full fruition the entire Jewish population of Europe would either have been exterminated or expelled to Poland and Russia. The number of Jews who died or were killed is not yet accurately established, but it appears to have been a tragically large proportion of those who fell into the hands of the Nazis.

The return of the surviving Jewish refugees to their former homes will be largely conditioned by future political and territorial arrangements in Eastern Europe from which the great majority of them came. It may be safely assumed that few of the surviving Jews from Austria and Germany will ever wish to return to their former homes. In fact a substantial number of these emigrated overseas during the war. On the other hand, it may be supposed that most of the survivors of the estimated 225 thousand Jews uprooted from their homes in Western Europe will return to the countries of their origin. It is evident that the several hundred thousand surviving Jews of Eastern Europe desire to go to Palestine but it is equally clear that many of these will have to find homes in Europe or in other overseas countries. Their past is a tragic history, their future is indeterminate.

The elimination of the Jew from the "New Order" was a negative aspect of German racial policy. On its positive side this policy advocated a consolidation of the more remote German "linguistic islands" with the solid bloc of Germans in Central Europe. In its initial application this policy had two objectives: first, to remove ethnic Germans from areas turned over to the Russians by the Soviet-German agreement of 1939 and, secondly, to consolidate with German settlement the Corridor and other Polish areas annexed to the Reich after the defeat of Poland. Subsequently arrangements were made for the return of ethnic Germans from other areas, though it is significant that no repatriation was carried on among German colonies of Danube areas formerly part of the Austro-Hungarian Empire. Apparently these were to serve as outposts of German strength in an area closely integrated to Germany in the "New Order."

"Repatriation" began in November, 1939, with arrivals from Estonia and Latvia. There followed agreements covering migrations of Germans from the South Tyrol, from Volhynia and eastern Galicia in Poland, from the Polish Government-General, from Bessarabia, Bucovina, and the Dobrudja in Rumania, from Lithuania, and finally from the several Balkan countries and from France. Over 800 thousand migrants were included in the proposed plans: about 600 thousand reportedly were moved.<sup>18</sup> In the course of these movements the native German minorities were liquidated in the Baltic countries, in Poland east of the Vistula, and in the old Rumanian provinces of Bucovina, Bessarabia, and the Dobrudja. Most of these were to be

<sup>17</sup> Kulischer, *op. cit.*, p. 111.

<sup>18</sup> *Die deutsche Volkswirtschaft*, April, 1943, p. 344. The transfers of German minorities during the war period have been fully and ably described by Joseph B. Schechtman in his *European Population Transfers, 1939-1945* (New York: Oxford University Press, 1946), Parts II and III.

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moved to the annexed provinces of western Poland to replace Poles deported to the Government-General. The deportations and influx of Germans nevertheless were far too small to change the essentially Polish character of the area, and at the same time great difficulties were experienced in successfully establishing the immigrants on the land.

Of the proposed resettlement schemes only that affecting the inhabitants of South Tyrol were not carried out. Of the 237,802 potential migrants, apparently less than a third of this number were actually moved. A few of these repatriates, and a number of Germans from Slovenia, were brought to the Marburg areas south of Austrian Carinthia in an effort to strengthen the German position in this southern march.

In contrast with this centralization of Germans from all parts of Europe was the flood of German civilians following in the wake of the armies of occupation. Over two million German civilians spread through the occupied territories as administrators, foremen, skilled workmen, business men, and as refugees from bombed German cities. It is clear that these and the so-called "repatriated" Germans from the liquidated colonies throughout Europe will find a place only in the territory of Germany proper. The departure of German minorities was generally welcomed by most of the sending countries; it seems highly improbable that they will be permitted to return to their old homes. Their future destiny would seem to lie wholly with that of Germany.<sup>19</sup>

(3) The final type of war migration considered is that resulting from the labor requirements of the Axis war machine. This was chiefly a movement from all over Europe into Germany, where there existed the greatest dearth of manpower. From a foreign labor pool of some 700 thousand at the end of 1939 (including 200 thousand prisoners), the total number of foreign workers rose as high as 7 million, including some 5 million foreign civilians and up to 2 million prisoners of war. In the last phases of the war a fifth of the German labor force was foreign.

Despite the enormous proportions of the voluntary and forced migration of foreigners into the Reich the net residue of international migration from this source will be only a small fraction of the original movement. Very shortly after the war's end an overwhelming majority of the 6,340,000 displaced persons found in the parts of Germany occupied by the Western allies had already been repatriated. The population of Northwestern Europe was rather quickly stabilized, the great majority of displaced persons remaining being Polish and Russian nationals. Many of these were said to resist repatriation from fear of political retaliation in their old homes, this feeling being especially pronounced among Poles and Baltic peoples from areas absorbed in the Soviet Union. The ultimate disposition of this "hard core" of displaced persons is obscure, but it is possible that a substantial number of the remaining displaced persons may ultimately find permanent homes overseas or in France, which has expressed a desire to receive mass immigration.

The foregoing analysis suggests that only a relatively small proportion of the total war migration is likely to be permanent except as regards movements within national boundaries. It seems certain that the greatest permanent movements resulting from the war will be those of the peace rather than those of the war itself. Such was the case in World War I; already movements have been set in motion incident to prospective boundary changes that will cer-

<sup>19</sup> In addition to movements affecting Germans there were a number of other attempts to eliminate minority problems by population exchange. Following the Soviet annexation of Bessarabia and northern Bucovina over 100,000 Rumanians fled or were expelled to the reduced territory of Rumania proper. The division of the Dobrudja in 1940 brought about a wholesale exchange of Bulgarian and Rumanian minorities. The Hungarian annexation of half of Transylvania as the result of the Vienna Accord of 1940 likewise induced an agreement covering exchange of minority populations across the new boundaries. The exodus of Rumanians from Soviet-annexed territories may be regarded as permanent. The permanency of the other movements will depend on the territorial arrangements of the peace. For a description of these and other transfers of non-German minorities, see Schechtman, *op. cit.*, Part IV.

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tainly eclipse any of the permanent effects of war migration in World War II. The professed intention of eliminating Germans from the Sudetenland and from the new Poland involves the permanent migration of some 13 million people. Other prospective displacements of population in Eastern Europe (e.g., the resettlement of Poles from the sections of old Poland absorbed in the Soviet Union) promise to swell this total, though the ultimate dislocation of people incident to the peace is now unpredictable.

### *The Effects of International Migration Within Europe*

The currents of international migration within Europe have had two distinct motivations, one economic and one political. In the past, differentials in economic opportunity have induced a flow of workers from Eastern and Southern Europe to the richer countries of the West, much as the wealth of the New World has attracted overseas migration from all parts of Europe. This was the typical form of international migration, even in the interwar period. But in recent years international migration has been governed as much by political as by economic considerations. The achievement of ethnic homogeneity has become a cardinal principle of policy in many European states. The liquidation of ethnic minorities by deportation and forced population exchange has become one of the most popular means of implementing this policy. Even where direct compulsion is not applied emigration has been induced by expropriation and discriminatory treatment. In view of the very different nature of migration undertaken voluntarily for economic reasons and that imposed by government for political purposes, it will be convenient to discuss the two types independently.

When the causes were economic, migration has usually been undertaken by individuals acting in their own interests. The decision to migrate or not is made on the basis of factors directly affecting the welfare of the migrant. It is not determined by the broader effects of migration on the countries of origin and destination. Yet these effects must form the basis for judgment as to the value and possible future of international migration.

The effects of such migration may be considered at several levels. It is first of all obvious that the population size and composition of the participating countries will be affected. Secondly, migration has important economic repercussions affecting the labor force, trade, the international balance of payments, capital formation, and so on. Finally, it has significant social and political effects that are increasingly decisive in the determination of public policy.

### *Demographic Effects*

The primary effects of migration on the populations are obvious. Population growth is accelerated both by the coming of the migrants and by the families that they establish in the country of their adoption. However, the degree to which a given amount of immigration will accelerate population growth is not constant. The net addition will be greater or less than the actual number of immigrants depending on their age composition, their fertility patterns, and the indirect social effects of the movement. Obviously young people, at the beginning of their child-bearing careers, will ultimately contribute more to the population growth of their country of adoption than old people. Immigrants from classes and countries of high fertility normally contribute more to population growth than those from classes and countries of low birth rates. Finally, if the immigrants are chiefly among the poorer classes, as they have been in France and the United States, there may be some cancelling effect on growth through the substitution of immigrant for native stocks.<sup>30</sup> But this last influence is a speculative one; there is little question but that

<sup>30</sup> In view of class differences in size of family it is possible that the fertility of natives is sometimes reduced by immigration. The immigrant customarily commences at the bottom of the economic class structure. Through exploitation of the immigrant and through the advantages of being first on the ground, the native stock enjoys superior

immigration has bolstered the population growth of France and of other European countries that have received migrants.

Conversely emigration in Europe unquestionably means a loss of population. In populations living at a subsistence minimum such as those in parts of India and China, emigration does not necessarily spell a permanent loss of population to the country of origin, because the gaps left by departures are quickly filled through the excess of births over deaths. But in Europe, where social factors determine the rate of population growth, losses through emigration are not automatically replaced. As in the case of immigration the net numerical influences of emigration are dependent on its composition as well as on its actual numbers.

The effects of migration on the age and sex composition of the populations are usually more important than changes in the total size. Migrants across international boundaries are predominantly young and predominantly male.<sup>21</sup> Young adults without family responsibilities find it easier both to leave their native country and to make their way in a new land.

The effects of large immigration on the composition of the population in the receiving country may be illustrated from the experience of France. The age pyramids of the populations of French and foreign origin are shown in Figure 30. The French population shows the aging attendant on long-established fertility decline. A relatively small proportion of the population was in the young working ages, a high proportion in upper middle life and old age. The war and differential mortality favoring females had resulted in an excess of two million women.

The structure of the combined foreign and naturalized population was strikingly different, concentrated as it was in the prime working ages, with few children and few old people.<sup>22</sup> With its large excess of males the foreign population contributed materially to healing the wounds left by war: the reported excess of males over females in the foreign and naturalized population amounted to 544 thousand. This relationship was especially important since the excess of males was concentrated in the young adult ages. As a result of immigration many French women were enabled to marry who otherwise would have had to remain single because there were not enough native French men to go around. Since immigration tended to balance the sex ratio at the marriageable ages it probably contributed more than proportionately to the maintenance of the birth rate. It was almost certainly a factor in the relatively slow decline of the French birth rate in the interwar period.

Conversely, it seems reasonable to suppose that emigration contributed to the decline of the birth rate in the emigrating countries, since it removed a more than proportionate number of potential parents and altered the balance of the sexes.

### *Economic Effects*

The most immediate economic questions that arise from international migration are those

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economic status and in turn acquires the small family patterns of the upper classes more rapidly than it otherwise would. The immigrant stock maintains the higher fertility of the lower classes from which it has displaced the natives. As the argument runs, if there had been no immigration the poorer and more prolific classes would have been of native rather than of foreign stock.

<sup>21</sup> As noted below, this is not necessarily true of internal migration or even of international migration where the crossing of political boundaries does not involve the crossing of an important cultural boundary as well. Thus females are more numerous than males in Dutch immigration, which largely consists of domestic servants from Germany.

<sup>22</sup> The French data on persons of foreign origin only approximately represent the structure of the immigrant population, since foreign nationality is not equivalent to foreign birth. Unfortunately age distributions of the foreign-born are not directly available from French statistics. Data on aliens and naturalized French are therefore used as an approximation. That these are probably not too misleading is indicated by the comparative excess of males over females in the two groups: reported as 516 thousand for the foreign-born and as 544 thousand for the aliens and naturalized citizens combined. France, *Statistique générale, Résultats statistiques du recensement général de la population effectué le 8 mars 1931*, Vol. I, Part 2, *Population présente totale* (Paris: Imprimerie nationale, 1935), pp. 76-78.

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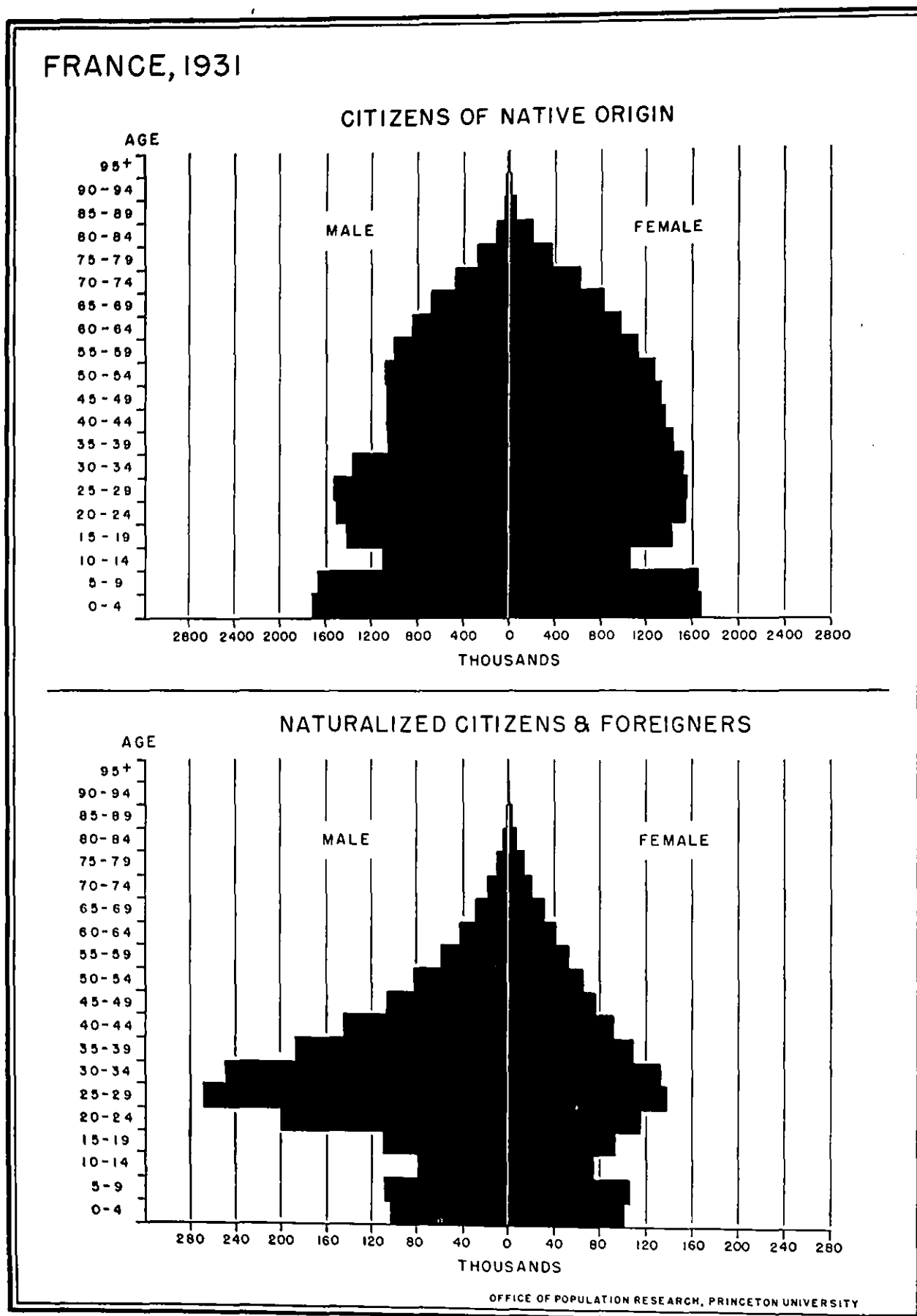


FIGURE 30. Age pyramids of the French population of native origin, and of foreign origin (through birth or naturalization).

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associated with the labor force. Owing to their age structure, immigrants normally contribute to the labor force out of proportion to their total numbers. Thus in France in 1931 aliens and naturalized French were 7.5 per cent of the total population, but composed 8.3 per cent of the total working force, and 10.4 per cent of the male working force. Because migrants are predominantly young and predominantly male, they contribute heavily to the most physically active sections of the labor force. Thus 14.1 per cent of males aged 20-39 in France were aliens or naturalized citizens.<sup>23</sup>

The impact of immigration is usually selective, not scattered equally throughout all employments. Mass international migration characteristically includes a high proportion of manual laborers suitable for employment in construction and heavy industry. In France 35 per cent of the labor force in metallurgy and 40 per cent of that in mining were of foreign (i.e., chiefly Polish) nationality. In some regions almost the entire labor force in these industries was of foreign extraction. A fourth of all workers in quarrying, stone work, and construction were aliens—principally Italians, who have long been active in these occupations. In relation to their total numbers, foreigners were under-represented in agriculture and generally in those occupations requiring education or capital.

Immigration for economic motives has generally been a source of economic gain to the receiving country. The reconstruction of the devastated areas in France and the accompanying rationalization of French heavy industry during the 'twenties was greatly facilitated by the availability of foreign labor. Net increments to the labor force through immigration were certainly a source of national wealth, especially as immigration supplemented those sections of the French labor force most severely depleted by the war. The immigrants brought to France their productive capacity free of the costs of education and upbringing. At the same time immigrants suffered disadvantages in bargaining power resulting from their ignorance of French customs and language, their lack of organization, and their political disabilities. In consequence France gained the products of their labor at much lower cost than would have been necessary to induce the employment of French workers in the same capacities.

Though immigration probably contributed to the over-all prosperity of France it is obvious that particular groups suffered from foreign competition. French workers in direct competition with foreigners were probably forced to accept lower wages than they otherwise would have been able to obtain. On the other hand, foreigners were often not employed in substitution for French workers, but in jobs that Frenchmen were unwilling to take. Foreigners were characteristically employed in the less desirable occupations.<sup>24</sup> Furthermore the degree of industrial activity made possible by the presence of cheap foreign labor expanded employment opportunities for Frenchmen in managerial, clerical, and service capacities.

Immigration brings greater productive capacity. It of course also brings greater demand for both consumer and capital goods. Because the immigrants are chiefly adults and because many of them establish new households, the effect on demand is probably considerably larger than that involved in the normal processes of population growth. To the extent that there was a persistent increase in demand flowing from immigration the risks of French entrepreneurs were reduced and capital investment was made more attractive than it otherwise would have been.

From the point of view of the sending country emigration has mixed implications for the

<sup>23</sup> *Op. cit.*, Vol. I, Part 5, *Etrangers et Naturalisés*, pp. 8, 46, 53, and 104.

<sup>24</sup> Thus, as regards agriculture, French workers have disappeared from some of the poorer occupations such as sheep-herding and wood-cutting. Owing to lack of capital, foreigners have been compelled to settle in the less favorable lands and on the hillsides deserted by the natives, leaving the fertile valleys and plains to French cultivators. The result has been some economic rejuvenation of the countryside. Cf. Georges Mauco, "Une enquête en cours sur l'immigration agricole en France" in *Demographie statistique* (Vol. IV in the proceedings of the Congrès international de la population [Paris, 1937]; Paris, Hermann et Cie, 1938).

economic welfare of the country. As noted above with reference to transoceanic migration, emigration characteristically draws off workers in their period of maximum productivity. The costs of raising these workers are thus lost to the country of origin, costs which are only partially balanced by emigrant remittances. The loss of productive power involved in emigration is particularly serious to those countries providing the sources of mass international migration within Europe. In these countries problems of low productivity outweigh those attendant on business cycles.

Emigration from Eastern European countries is of immediate economic benefit only when the additional product of the labor of prospective emigrants is less than their consumption. Since the age structure of emigrants is one to favor production relative to consumption, only conditions of extreme agrarian overpopulation make emigration immediately worthwhile. Such conditions do prevail in some sections of Europe. It has been asserted that in some areas, such as Polish Galicia, a third of the agricultural population could be removed without loss in total production.

Furthermore, viewed in longer perspective, emigration may have long range economic benefits to overpopulated countries that outweigh temporary losses. In the tight agrarian economies of Eastern and Southern Europe the rapid increase of population has no adequate outlet in local industry and commerce. Further crowding on the land inevitably leads to the further division of holdings, the intensive and uneconomic use of inferior lands, and the perpetuation of primitive agricultural practices necessitated by lack of capital.<sup>25</sup> Emigration tends to relieve pressure at a critical point by removing young people at the start of their careers. The economic desirability of emigration from overpopulated countries has been generally recognized and has found expression in the attempts of these countries to find outlets abroad for their surplus populations.

Differences of opinion exist as to the specific economic benefits involved, but in normal times migration for economic purposes generally has been found mutually advantageous to the participating countries and to the migrants themselves. The social and political effects of international migration have been much less favorably regarded.

### *Social and Political Effects*

The social and political effects of international migration arise from the fact that migrants are human beings as well as units in the labor force. With their productive capacity they bring their language, their customs, and their political loyalties. They create social problems of adjustment in their new environment; they form a minority of divided political allegiance.

Because of the importance of national unity in the extremely competitive international situation of the twentieth century, there has been much interest in the assimilation of immigrants in the receiving countries. Certain generalizations are possible from the experience of overseas migration and migration within Europe. It is first of all apparent that the rapidity of assimilation is affected by the number and concentration of immigrants. Obviously the larger proportion of immigrants there are in a population, the more difficult is assimilation. When migration is scattered throughout the receiving country, assimilation is greatly facilitated; when migration takes the form of compact settlement, as of the Germans in southern Brazil, in Pennsylvania, or in the Volga region, the resistance of the colonizing groups to absorption in the native population is much greater.

Secondly, assimilation is greatly facilitated by similarity of language and cultural tradition. In France, Italian and Spanish immigrants have readily intermarried with the local populations.

<sup>25</sup> Cf. Wilbert Moore, *The Economic Demography of Eastern and Southern Europe* (Geneva: League of Nations, 1945), Chapter I.

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In regions adjoining their respective countries they have rapidly become indistinguishable from the natives whose dialects and customs are themselves intermediate between the French and the other Latin groups. Poles and Slavs generally have been less readily assimilated.

Thirdly, assimilation takes place more rapidly among immigrants from relatively backward areas living in an economically developed country than in the reverse situation. In general, foreign industrial workers in France and Germany have been rapidly assimilated, complete acculturation occurring in the second generation. On the other hand, the economically advanced colonists from Germany in the Baltic countries, in Russia, and in Eastern European countries generally have survived for many generations as distinguishable minorities and linguistic enclaves.

Finally, immigrant colonies show much less resistance to absorption than established minorities and especially those forming solid blocs of settlement across international boundaries. It has been observed in France that the children of immigrants quickly adopt the French language as soon as they go to school. Without their roots in the soil, without established cultural institutions, immigrants are at a great disadvantage in resisting assimilation.

The dangers of establishing minorities have been well understood by modern countries of immigration and have been the cause of vigorous assimilation policies. The fear of dilution of race and culture by uncontrolled immigration has been an important factor in the rapid spread of restrictive policies. The aggressive policies of the receiving countries have been matched in turn by the increasing concern of the sending countries over the denationalization of their migrants. Efforts have been made to keep up cultural contacts with emigrants, to provide for the education of children in the country of origin, and through propaganda to strengthen loyalty to the fatherland.

With this growing contradiction of policies in countries of immigration and emigration it was inevitable that migration should be more and more controlled in interests of implementing national policies. From the guidance of natural currents of migration, a number of countries have gone on to seek in forced emigration and population exchanges a solution of troublesome minority questions.

### *Forced Migrations*

International migrations imposed by governments or induced by political oppression can be justified only in terms of political objectives. There is little to be said for them on economic or humanitarian grounds. They impose great hardships on the migrants. Uprooted, usually dispossessed of much of their property through forced sales or through outright expropriation, the migrants must start life anew. As refugees they create problems of dependency and support. Once torn adrift, some never find a satisfactory niche in their new homes. During and between the two wars forced migration has been one of the most important causes of personal tragedy and human suffering.

The justification for population exchanges and of government policies encouraging the liquidation of minorities through emigration has been the achievement of ethnic or racial purity. It is contended that the elimination of minorities removes one of the most serious causes of international friction. Thus the friendly relations between Greece and Turkey existing since the early 'twenties have commonly been ascribed to the resolution of minority problems by the Greco-Turkish exchange of population. Unfortunately, however, most forced movements of population, such as those attendant on the Nazi rise to power, have had as their purpose some narrowly nationalistic objective. Too often deportation and forced migration have served as a manifestation of sentiment rather than as a rational attempt to resolve sources of



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international differences. Just before and during the war forced migration served as an ominous instrument of aggression.

Forced migration and population exchanges are, in fact, a confession of defeat. They are based on the assumption that people of different speech and customs cannot live their daily lives together without conflict. Their fundamental premise is that if different nationalities know each other too well they will inevitably hate each other. In this conception, insulation rather than mutual understanding is the key to peace.

Finally, there is no guarantee that once made, forced migration will offer a permanent solution to territorial questions. Static boundaries do not enclose static populations; the human content of boundaries is constantly changing. Differential rates of growth on the two sides of a political boundary may ultimately lead to new admixtures of peoples through new migrations, or through less peaceful means.

### *Prospects for International Migration Within Europe*

The interwar period and the chaotic years of the Second World War witnessed a kaleidoscopic series of migration currents. There was no clear pattern of migration trends comparable to those observed in fertility and mortality. In the first years of the interwar period migrations were conditioned by the new territorial arrangements of the peace. These politically motivated migrations were followed in the 'twenties by "normal" migrations inspired by differentials in economic opportunity. In the depression years international migration was greatly reduced and its revival, in the late 'thirties, was conditioned by political developments more than by the resurgence of earlier movements springing from fundamental differences in levels of living. Thus the flight of the Jews before Nazi oppression, the "return" of German colonists from Eastern European countries to the Reich, even the movements of workers from Austria and the Sudetenland to feed the labor demands of German rearmament—all were planned features of the German "New Order." Other important population movements of the 'thirties, such as the large emigration of Jews from Poland to Palestine and the exodus of Turkish peoples from the Balkans, had a strong political flavor. Even migrations for economic purposes were becoming less spontaneous and personal, more under governmental control both in the country of origin and in the country of destination. Traditional countries of emigration, such as Poland and Italy, were taking increasing interests in the fate of their nationals seeking their fortunes in other countries. Countries of immigration, such as France and Germany, subjected alien workers to increasing control and restriction. In the immediate prewar years migration was becoming less and less a matter of individual choice, more and more guided and even imposed. The war saw this tendency magnified in the forced uprooting of many millions of people to satisfy conflicting and changing political objectives.

This trend will almost certainly continue in the immediate postwar years. The territorial arrangements of the peace are bringing about a great reshuffling of populations and there is every prospect that this will be completed by force if the populations do not acquiesce.

With the resumption of more normal conditions the older economic motives for migration will undoubtedly reassert themselves. The reappearance of pressure to migrate from Eastern and Southern Europe to Western Europe seems highly probable. The basic differences in economic opportunity in the two major regions are very great and will certainly persist in the postwar years. Thus with interwar agricultural production in Eastern and Southern Europe over 35 million persons would have to be removed from agriculture to gain the average per capita productivity of Europe in this region.<sup>26</sup> Since opportunities in non-agricultural occu-

<sup>26</sup> *Ibid.*, 63-64.

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pations are also poor in this area, it would require an even larger movement to bring about some hypothetical equalization of economic opportunity.

The postwar situation will be aggravated by more rapid population growth in the Eastern and Southern region. Ignoring war, the population projections described above<sup>27</sup> predicate a decline of 9 million people in Northwestern and Central Europe between 1940 and 1970, but a gain of 27 million in Southern and Eastern Europe in the same period. They suggest an increase of some 32 million persons of working ages in the latter area. Existing differences in economic opportunity, plus differential population developments, seem certain to create some pressure for migration. The equalization of economic opportunity through emigration would involve the movement of tens of millions of persons in the next few decades.

There is little likelihood that these migration potentials will break out in a movement of proportions dangerous either to sending or to receiving countries. Even under the best of circumstances elements of rigidity would prevent the achievement of economic parity through migration. Migration is always checked by man's innate conservatism and love of home. Barring any political or social obstacles, a considerable margin of difference in level of living would still be necessary to induce inter-regional movement. In actual fact there are serious economic and political considerations of a more specific nature that will inevitably hold intra-continental migration far below that necessary to bring about equality of economic levels of living.

Thus migration might well be economically unwise even in the face of large international differences in general levels of living. The immigrant typically starts at the bottom of the economic ladder. Therefore, in order to induce mass migration the jobs at the bottom of the ladder in the new country must be superior to the mass opportunities in the old. Or there must be the fact or the expectation of ready advancement from inferior economic status in the adopted land. Furthermore, opportunities differ widely in various sections of any economy, so that relative advantage sufficient to induce migration may be confined to a limited range of occupations. These and other institutional rigidities, such as the opposition of organized labor, greatly reduce the advantages and the opportunities of migration.<sup>28</sup>

The fear that immigration may be a cause of unemployment and economic depression in the industrial countries is probably groundless. It is sometimes popularly supposed that unemployment is an expression of overpopulation and that relief from this problem may be promoted by restrictions on immigration and on the employment of aliens. This view is superficially supported by the fact that the most severe unemployment in Europe has occurred in the most densely populated countries. It is possible that there are some rigidities in the economic system that result in the expression of overpopulation in unemployment. But it is obvious that unemployment also exists as a very serious problem in such underpopulated countries as Australia and New Zealand. The determining factor is clearly not population density but the degree of industrialization. It is the industrial countries of Europe, and *ipso facto* the most densely populated ones, that are most subject to the vagaries of the business cycle. In general, countries subject to widespread overt unemployment are countries of high standards of living. In agricultural countries with low levels of living the problem is not so much that of cyclical unemployment as it is chronic and concealed underemployment in the rural areas. This, and not overt cyclical unemployment, is a symptom of overpopulation and the chief source

<sup>27</sup> Chapter IV.

<sup>28</sup> A new deterrent to migration is the development of social security benefits. Thus a prospective migrant may prefer to accept a lower wage rather than to sacrifice accumulated claims (e.g., to an old age pension) by emigrating, or to give up rights to unemployment benefits, etc., in his own country for the prejudicial position of an alien in another land.

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of pressures to migrate. It is unlikely that depression and unemployment will be a major source of migration in Europe and that they will be accentuated in the countries of immigration by prospective population movements. If depression and unemployment exist they will probably be widespread, as in the past. As in the depression of the 'thirties, they would inhibit rather than promote migration.

Obviously even if the economic barriers to migration were insufficient to check a swamping of the labor market by immigration, political controls would be introduced to prevent such a condition. And in the larger view, countries of higher levels of living certainly will not permit the immigration of the hordes necessary to create equilibrium of economic opportunity. With political controls so readily at hand, the danger is clearly from too rigid restriction of migration rather than too lax.

The social and political deterrents to migration have already been discussed. Regardless of the nature of the postwar world these will certainly not disappear. To the receiving countries in advanced stages of demographic evolution, immigration may be the quantitative solution to problems of population decline. It also may be viewed as a menace. A group threatened by declining numbers is likely to be particularly jealous of its cultural traditions and especially sensitive to fears of foreign inundation. In such a climate the assimilation of large-scale immigration is rendered difficult even if outright restrictions are not applied, or even if immigration is legally encouraged, as in France.

For emigrating countries migration is in some regards a confession of failure. In a nationalistic world, it means the loss of human capital, of military potential, and of ethnic strength because the home country is unable to provide acceptable conditions of life for its citizens. Other solutions to the problem of poverty and lack of opportunity will certainly be preferred by the sending countries. Industrialization and the importation of capital, for example, will certainly be favored over the export of people.<sup>29</sup> Emigration is likely to be considered a residual and last resort solution. Public policy will almost certainly be directed at other methods of relieving economic hardship.

The new role of the Soviet Union in Eastern Europe will probably strengthen the political deterrents to emigration from this region. It has been the policy of the Soviet Union to forbid free emigration altogether; presumably this policy will be extended to her newly acquired territories once the minorities (e.g., Polish and Rumanian) have been transferred. Closer economic and political ties with the Soviet Union seem likely to encourage similar policies and attitudes toward migration among the smaller neighbors of the U.S.S.R. It is even possible that new political orientations and the industrialization of the Soviet Union may result in a diversion of emigration from these countries to the East and away from the West.

The future of international migration in Europe is obviously dependent not only on specific political and economic questions, but also on the general organization of European affairs. Large-scale free migration in Europe is a phenomenon of "normal" times. In the past, free migration has been the accompaniment of free trade, of free capital movements, of a free liberal economy. The movement of people is closely correlated with the free movement of the other factors of economic production. The control and restriction of migration is a natural corollary of other economic controls.<sup>30</sup> Free migration in Europe will be large or small depending

<sup>29</sup> As, for example, the program signed and sponsored by leading experts from several Eastern European countries in: Royal Institute of International Affairs, *Agrarian Problems from the Baltic to the Aegean* (London, 1944).

<sup>30</sup> It is true, of course, that migration stands in a substitutionary as well as a supplementary relationship to the movement of goods and the flow of capital. Migration could take the place of capital movements. Thus capital may be invested in undeveloped areas, or the labor of those areas may move to the established seats of industry. In actual practice thinly populated areas of undeveloped resources (e.g., in the Americas) have drawn *both* people and capital. Densely populated areas of undeveloped resources (e.g., in Asia and Europe) have attracted capital but

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upon the extent to which systems of economic autarchy are breached to permit freer flow of goods and people.<sup>21</sup>

In the final analysis the amount of free migration will depend upon the political climate of the New Europe. If fear and suspicion are still the dominant emotions of the international scene, immigrants will be viewed as hostile minorities, an opening wedge for disruptive political action, treachery, and Trojan-horse activities. If the tense, competitive atmosphere of the interwar period can be dispelled in the postwar years, we may anticipate some revival of the mutually advantageous flow of labor to the West and reciprocal movement of capital to the East. Supplementing the purely economic advantages would be the invaluable gains of mutual understanding and cultural stimulation that in the past have contributed so much to the achievements of Western civilization.

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have sent emigrants to other regions. Empirically, free international migration and free capital movements have tended to fluctuate together in the larger scene, and have both been sharply curtailed with the introduction of economic autarchy.

<sup>21</sup> It might be argued that the inhibiting influence of arbitrary and conflicting national controls could be offset by the substitution of greater international control. Bilateral agreements, such as those concluded between France and Poland, could certainly contribute to the welfare of the individual migrant. Such agreements are to be desired from all points of view. However, until countries relinquish to an international authority their sovereign right to control migration across their boundaries, standards of national rather than international interest will inevitably govern migration policy.

## CHAPTER VII

### INTERNAL MIGRATION

IN discussions of migration attention is often focussed on movements across international boundaries. These movements are of interest because of their political significance. They are commonly statistically reported owing to the formalities involved in crossing frontiers. They are dramatic in that they often involve the crossing of cultural as well as political barriers.

Internal migration is less dramatic, but its influence touches a far greater number of people. In the middle of the interwar period some 10 million inhabitants of Europe west of the Soviet Union were resident outside the country of their birth. By contrast, as many as 75 million were living outside their native province or department and at least a third of all Europeans were living outside the commune or locality of their birth. Prior to the war at least 150 million had moved from their native communities.

Logically, internal migration includes all changes of residence within the national territory. It covers not only the exchange of population between communities but also those within communities. Thus it is not so easily measured and defined as international migration. Except in those few countries, such as Sweden and the Netherlands, which have reasonably accurate population registers, movements within countries are not officially recorded. Furthermore, within countries there is a great deal of temporary and seasonal migration that is not always clearly distinguishable from permanent change of abode. Often these half-migrations partake of much of the character and fulfill much the same functions as permanent migration. Even commuting has been considered as a phase of internal migration.

Because the barriers to free movement are far less within countries, internal migration is much more sensitive to differences in opportunity than is international migration. It much more fully carries out the theoretical function of migration, namely, the equalization of population and opportunity. Both sides of the equation are constantly changing. Population differentials are subject to changing forces affecting fertility and mortality, while technological progress may quickly alter relative opportunities. Migration, no matter how uninhibited, never quite achieves a balance of the dynamic forces altering both population size and opportunity. As an individual choice, migration is always subject to errors of judgment regarding comparative opportunity. More important, there are always social and other ties that limit complete freedom of movement. But errors of judgment are less likely in internal migration than in international migration. Often the migrant within a country is already familiar with the nearby community to which he travels. He is much more likely to have first-hand judgment of the conditions of his new environment. On the other hand social and economic barriers are small. The internal migrant generally goes to a community whose language and customs are familiar. His economic and social ties with the place of origin generally continue close. The risks of migration are small and often these can be tailored to fit the psychological requirements of the individual. The less enterprising individual may be unwilling to go to a distant city even for relatively large gain, but quite willing to undergo the smaller risks involved in moving to a nearby town for less gain. Through seasonal and temporary migration individuals may achieve some equalization of opportunity without sacrificing their position in their home communities. Internal migration is thus more flexible and responsive than international migration to differential opportunities.<sup>1</sup>

<sup>1</sup> The relationships between distance, opportunity, and knowledge of opportunity in migration present interesting theoretical problems tentatively explored by Samuel A. Stouffer in his article on "Intervening Opportunities: A Theory Relating Mobility and Distance" in *American Sociological Review* 5(6): 845-867, December, 1940. This theory has been tested in two articles subsequently appearing in the same journal: Margaret L. Bright and

## INTERNAL MIGRATION

### *Patterns of Internal Migration in Europe*

In modern Europe superior economic opportunities have been concentrated in the towns and cities. Consequently internal migration has been very uniformly from rural to urban areas. Even where inter-regional migration occurs it is normally overshadowed by the movement from farm to city. Of itself inter-regional migration is often a migration from the rural countryside of one region to the industries and towns of another.

#### *Problems of Measurement*

There is ample evidence in the growth of cities that there has been a general rural-urban migration of tremendous proportions. In every European country the urban population is a rising share of the total. However, the direct statistical evidence of migration is extremely inadequate.<sup>2</sup> Changes of residence within countries are rarely systematically recorded. Where they are, the reporting is often so incomplete or so biased as to render the materials unusable. Thus a common bias arises from the more accurate reporting of arrivals than of departures, so that migrants often continue to appear on the registers of both sending and receiving communities. The result is an exaggeration of in-migration since the counterbalancing out-migration is not fully recorded.

Owing to the absence of adequate direct statistics on internal migration it is necessary in most cases to rely on indirect evidence. In many European censuses place of birth is recorded, so that it is possible to ascertain the net results of migration, though without reference to the time of its occurrence. Further, the net balance of migration in intercensal periods may be determined from census and vital statistics where both are reasonably accurate. The latter do not indicate the sources and direction of migration except by inference but supplement the former in that they provide time reference. Neither of the two types of material exist for all Europe, but they are sufficiently common to permit some general analysis, which may be further supplemented from the very large number of case studies of special areas.

Place of birth is recorded in almost every European census, though the results are not always tabulated and published. Thus in Germany the individual census replies include place of birth, but these have not been tabulated in the results since 1907. In other countries, and notably France, place of birth is tabulated, but only for purposes of determining the proportion of the inhabitants born in their department of residence. Since the departments are not cross-classified by place of birth against place of residence the direction of movement can only be inferred.<sup>3</sup> However, such cross-classification has been tabulated for a number of European countries. The results of these tabulations in terms of balance of migration are depicted by flow lines in Figure 31.<sup>4</sup> In the following discussion by countries these place-of-birth materials are supplemented by reference to data on the over-all balance of migration in specific time periods mapped and discussed in Chapter VIII.<sup>4</sup>

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Dorothy S. Thomas, "Interstate Migration and Intervening Opportunities," 6(6): 773-783, December, 1941, and Eleanor C. Isbell, "Internal Migration in Sweden and Intervening Opportunities," 9(6): 627-639, December, 1944.

<sup>2</sup> Though in the case of France a special study of the origins of provincials living in Paris in 1931 was made by Henri Bunle, "Les provinciaux à Paris en 1931," in *Bulletin de la statistique générale de la France* 26(3):473-89, April-June, 1937.

<sup>3</sup> Thus if 10,000 residents of Province A are reported as born in Province B, and 30,000 residents of Province B are listed as born in Province A, the net migration is computed to be 20,000 from A to B. Obviously this method does not indicate when these movements occurred, nor does it record intermediate step-migrations that may have occurred between birth and the date of the census.

<sup>4</sup> The net balance of migration as determined by differencing intercensal growth and natural increase is a measure of net gain or loss of population from *all* migratory movements, and not just internal migration. Nevertheless internal migration is commonly much the largest component of the total, so that the over-all balances provide useful clues as to the amount and direction of internal movements.

EUROPE'S POPULATION IN THE INTERWAR YEARS

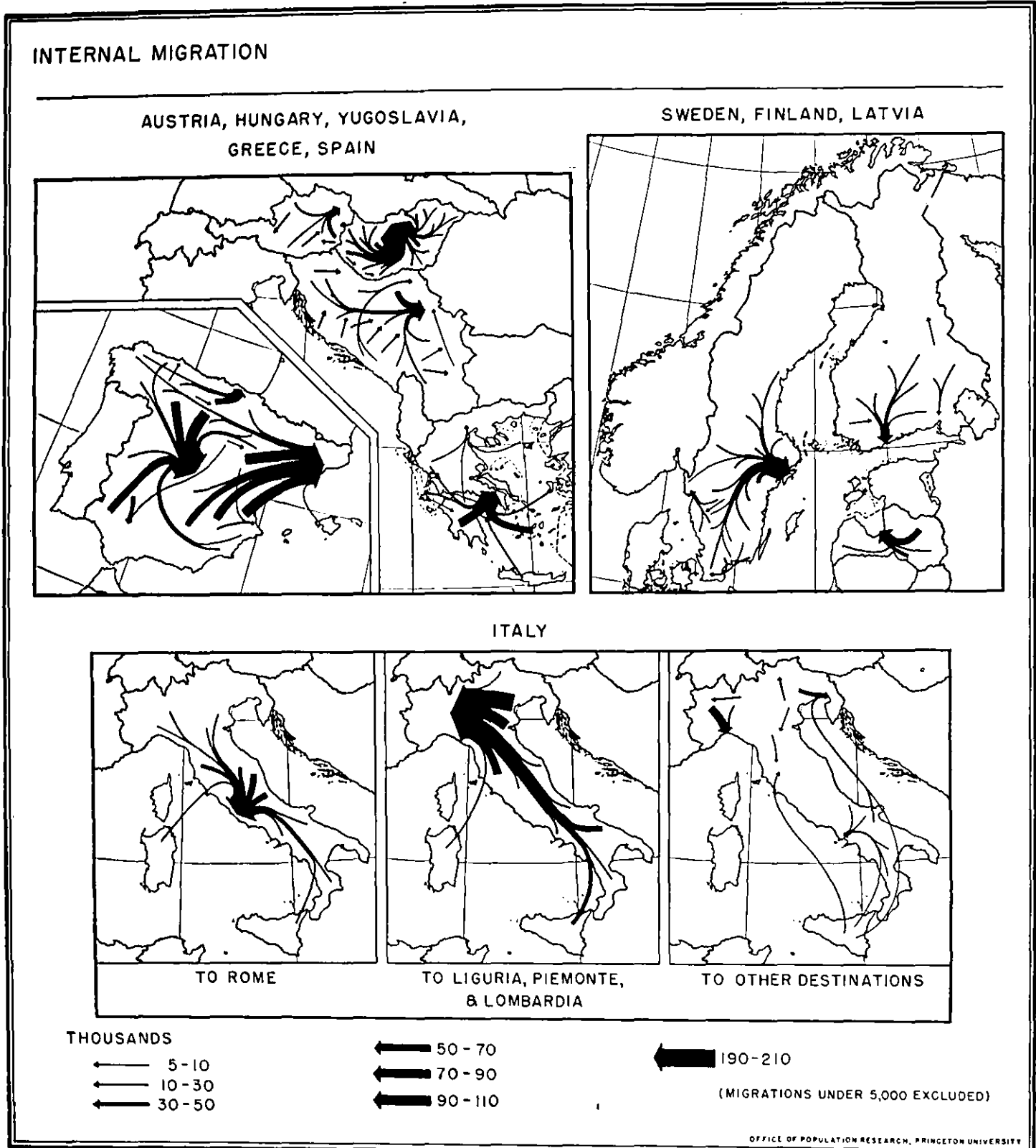


FIGURE 31. Patterns of internal migration in selected European countries as determined from place-of-birth statistics.

*The British Isles*

Within the British Isles migration is directed, first of all, to England from the other component countries,<sup>5</sup> and within England to the metropolitan area of London. Place-of-birth

<sup>5</sup> Migration between the several countries of the British Isles may be regarded as internal migration, though the position of Ireland is such that migrations between that country and the remainder of the British Isles are sometimes classed as international (cf. Figure 26 above). There are no legal barriers to free migration in the British Isles and no change of nationality is involved even in those movements affecting Ireland.

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statistics for 1931 indicate a net gain to England of 100,000 from Wales, of 200,000 from Scotland, and over 300,000 from Ireland. There were also minor increments from the Channel Islands and the Isle of Man.

The attractiveness to migrants of the component countries of the British Isles is directly related to the degree of industrial and commercial development. Ireland sends migrants to Scotland and England, Scotland sends migrants to England, and within England migration flows to London. Rural Eire, traditionally suffering from agrarian overpopulation, has sent its surplus inhabitants to the United Kingdom as well as overseas. Southern Irish have long been attracted to Belfast in Northern Ireland, to the Clydeside in Scotland, and to the English ports facing the Irish Sea. In the past Irish immigrants have clustered heavily on Merseyside and in the industrial cities of the North, where they have furnished an important share of the labor employed in shipbuilding and heavy industry.

The interwar period witnessed the increasing importance of the United Kingdom as a destination of migration from Eire. In the days before the First World War less than ten per cent of the total Irish emigration was directed to other parts of the British Isles. During the 'twenties this proportion increased to more than a fourth, and in the 'thirties over ninety per cent of total Irish emigration was absorbed in the United Kingdom. This violent shift was of course partly the result of immigration restrictions overseas in the earlier decade and of the drying up of overseas migration as the result of the depression conditions in the later decade. However, Irish migration into Great Britain is unique in that it was larger in the 'thirties than in the relatively prosperous 'twenties. The average annual migration from Eire to Great Britain was only 7.3 thousand in the period 1924-1929, as compared with an annual average of 17.8 thousand in the years 1930-1937.<sup>6</sup>

Furthermore, the character of Irish in-migration and its destinations within the United Kingdom have changed. In recent years the distribution of Irish immigrants in Great Britain has been altered by the growing importance of London and the South East counties as place of ultimate destination. Migration to the Glasgow area in the interwar period was reduced by the relatively poor economic conditions in Scotland, especially in the shipbuilding industry. Though Liverpool has continued to be the chief entrepôt of Irish immigration it has increasingly served as a way point to other destinations, and notably to the London metropolitan area. This shift has been accompanied by a change in the nature of Irish emigration to England. The economic opportunities of the North were those appealing to men and especially to day laborers. Consequently men were customarily in a majority in the movement across the Irish Sea. More recently women have predominated, apparently owing to the growing demand for Irish servants in London and its environs, where there were half again as many Irish-born women as men.

Migratory movements within Eire itself have been relatively minor as contrasted with external migration, but there is evidence of a substantial centripetal movement to the more developed eastern province of Leinster, and especially to the city of Dublin. Between 1926 and 1936 Dublin County was the only one in Ireland to gain through migration. Losses were proportionately greatest in the western Gaeltacht areas, least in the east.

Northern Ireland has experienced a small net in-migration from Eire but has lost to the other divisions of the United Kingdom. Geographical location has resulted in a large migration to Scotland. Over half of the Irish-born in Scotland are from Northern Ireland, while only a fifth of those in England and Wales are Ulstermen.

Scotland, like Ireland, has long contributed far out of proportion to overseas migration from the British Isles, and supplementing this movement has been a longstanding migration to

<sup>6</sup> R. S. Walshaw, *Migration to and from the British Isles* (London: Jonathan Cape, 1941), p. 72.



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England and Wales. A poor country and a lively sense of economic opportunity have long pricked the Scotsman to seek his fortune in other lands. Up to ten per cent of each Scottish generation has found its way to England, and the Scotsman is a common figure in all walks of English life.

Every county in Scotland was losing population by migration in the 'twenties. Most areas were losing heavily, the relative losses being greatest in the Highland North. Only the larger cities have gained appreciably in the balance of internal migration, and the bulk of the movement has gone to the two cities of Glasgow and Edinburgh. These cities have served as two poles of attraction; the one more influential in the west, the other in the east. Though the smaller city, the position of Edinburgh as an administrative center appears to have favored its development over Glasgow, which suffered from the depression in the shipbuilding industry after the First World War.

Analysis of internal migration in England and Wales is hampered by the fact that places of birth and residence have not been cross-tabulated in the publications of the English census. However, by inference it is apparent that London and the South East Region have been areas of great population absorption. In the southeastern counties five million people born in England and Wales were living outside the county of their birth. More persons were living outside their native county in this region than in all the rest of England combined. There were nearly four million in London and the five surrounding counties, and three million in greater London alone. In part these figures simply represent the greater mobility of persons born in southeastern England,<sup>7</sup> but very substantial numbers unquestionably moved to the London metropolitan district.

The importance of the southward drift is more directly indicated in the balance of migration between 1921 and 1931, presented in Figure 36.<sup>8</sup> With the single exception of London County itself, every one of the 15 counties within a radius of 50 miles from London gained through migration. Of the 48 remaining administrative counties less than a fourth (11) showed gains. The South East Region gained 633 thousand through migration in the decade while of the other major regions only the South West showed a gain. The depressed coal areas of South Wales and Durham showed the greatest losses. Wales as a whole lost almost a tenth of its population in the decade through out-migration.

The reciprocal nature of losses in Wales and the North and gains in the South obviously suggests a large direct movement. This undoubtedly occurred. However, the total migration pattern was certainly more complicated. England and Wales have traditionally lost in balance of migration, chiefly as the result of overseas emigration. Such losses in the South East are generally counter-balanced by immigration and return migration from overseas. Thus foreigners and British subjects retiring from the colonial and other overseas careers tend to settle in the London area. Much of the Irish and Scottish in-migration is drawn to London. Gains in the South East are not only the result of direct migration, which is large, but also of the indirect effects of external migration.

The effects of external migration also influence the position of the northern industrial region,

<sup>7</sup> The proportion of the population born outside the place of residence is a commonly used source of inference on the extent of internal migration. Unfortunately it is a precarious one. It is true that a district of heavy in-migration will show a high proportion of persons born elsewhere and that a district of heavy out-migration will customarily show a high proportion of natives. But the proportion of natives in the population is also a measure of mobility (i.e., of the extent to which populations move about regardless of the direction of their movement). Thus in Western countries of highly mobile populations even areas of out-migration may have many "foreign"-born acquired in population exchange. At the same time a high proportion of native-born in Eastern Europe may be the result of both out-migration and immobility, the two elements being indistinguishable on the basis of this evidence alone.

<sup>8</sup> Chapter VIII. The data mapped are given in Appendix III, Table 8.

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where losses to other parts of England and especially London have been partially balanced by gains from Ireland. Like the "depressed areas" of South Wales and the North East, the Lancashire region has experienced a loss of both industry and population to the South. The difficulties of the textile industry in particular have caused an outflow of people. The shift to different types of industry is reflected in the migration position of the Midlands, several counties of which experienced modest gains through in-migration in the 'twenties. But the great shift has been to the South.

Special factors have, of course, played an important role in the relocation of British industry and people. The decay of the mining areas was associated with the transfer from coal to oil fuel in shipping. The difficulties of the textile industry are traceable to the increase of foreign competition. However, the decline of the old industrial centers relatively to London is of much more general significance. In every developed country an increasing part of the energies of the people are being devoted to distribution and what are generally classified as "services." In England and elsewhere there has been a drift from primary to secondary industries; there has been an even more marked drift to the growing "tertiary" industries: the professions, government, and all those occupations devoted to the creation of time and place utility rather than to physical production. Such occupations, being largely divorced from the immediate sources of raw materials, tend to concentrate in the administrative and commercial cities. As the greatest administrative and commercial center in the world London has naturally drawn the lion's share of such development in England.

Within the South East Region the pattern of migration has been almost entirely a function of the London metropolitan development. In common with many other large cities London was spreading geographically even more than it was increasing in population. The metropolitan area sprawls into five surrounding counties and its suburban influences are progressively reaching into quiet communities once far removed from the jostle of urban living. The rapidity of the suburban development is indicated by the fact that the five surrounding counties gained over 800 thousand through migration in the single decade, 1921-1931. In Middlesex and Surrey the increases amounted to 20 per cent of the population at the beginning of the decade. In the outer ring of counties included within a fifty mile radius, migration gains were naturally smaller with the fading influence of the metropolis. The driving centrifugal force reflected in the suburban movement is paralleled by the desertion of the central city. The administrative county of London lost 360 thousand persons through migration in the 'twenties.<sup>9</sup>

### *Northern Europe*

Migratory movements within the several countries of Northern Europe are documented with greatly varying degrees of completeness. The materials for Sweden are especially complete; those for the other Scandinavian and Baltic countries are less satisfactory.

<sup>9</sup> Owing to the limitations of official statistics, studies of internal migration in England and Wales during the interwar period are of necessity rather inadequate. There are two noteworthy studies utilizing statistical materials not considered above. The first of these, by H. Makower, J. Marschak, and H. W. Robinson, used the Registrar-General's estimates of annual population changes by counties (derived from registers of parliamentary electors and housing statistics) to obtain estimates of internal migration for each year from 1927 to 1936. These figures were related to data on unemployment to determine coefficients of mobility and indices of population excess (i.e., the number that would have to move to equalize unemployment rates). The results, with interesting theoretical interpretations, are incorporated in three papers: "Studies in the Mobility of Labour: A Tentative Statistical Measure" and "Studies in Mobility of Labour: Analysis for Great Britain," Parts I and II, in *Oxford Economic Papers*, Oct., 1938, May, 1939, and Sept., 1940.

Another study, by Brinley Thomas, uses Ministry of Labour data on origin of record books of the insured population in the two chief areas gaining by internal migration. The results are given in two articles, "The Influx of Labour into London and the South East, 1920-1936," and "The Influx of Labour into the Midlands, 1920-1937" in *Economica* N.S. 4(15): 323-336 and 5(20): 410-434, Aug., 1937, and Nov., 1938.

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Sweden has long been a country of active migration. Emigration has been highly correlated with economic cycles in the countries of destination. Similarly the volume of internal migration has been closely related to the economic cycles in Sweden, rural-urban migration being greatest in periods of industrial expansion and job opportunities in the towns.<sup>10</sup> With the industrialization of Sweden the towns provided increasingly effective competition with the New World for the surplus population of Swedish agriculture.

Place-of-birth data reveal widely dispersed losses through migration and a concentration of gains in the three large cities (Figure 31). It is apparent that the city of Stockholm was in effect the ultimate destination of migration in Sweden. Stockholm City and Län (the latter including important suburbs) drew a balance of migration from every other department of Sweden, though the numbers were in some cases too small for presentation in Figure 31. The cities of Göteborg and Malmö have significant local spheres of attraction as evidenced by the inward balance of over-all migration in their respective provinces. Göteborg, as the second city of Sweden and an important port, has exercised considerable pull in its region though its net inward balance was only a little more than a fifth that of the Stockholm area. The pull of Malmö at the southern tip of the country was more restricted; an important part of its local gains were drawn off to Stockholm, and to Copenhagen across the straits.

The drift of the Swedish population to the larger towns has been analyzed in detail and for various time periods. A striking feature of Swedish migration has been its extensiveness as compared with net movements in or out. The net balance of migration has generally been only a small fraction of the total migration streams. Thus in the period from 1895 to 1930 the net gains of the towns (as classified by the Swedish census) has been only one-eleventh of the total movement to them. Similarly eight times as many persons moved from agricultural communities as were "lost" to these communities.<sup>11</sup>

Despite its complexity the townward movement has nevertheless been persistent in direction. In each of the four periods of analysis between 1895 and 1930<sup>12</sup> communities classified as agricultural and "rural-mixed" lost by migration and those classified as "rural industrial" and towns gained. In every period agricultural communities lost most heavily and the greatest gains were in the towns. Stockholm has consistently gained more than the other towns.

In recent decades there is evidence, not only of dispersion from rural communities, but also from the smaller towns. In the 'twenties 35 of the 88 town regions showed losses, and if intra-regional (short distance) migrations are excluded 58 of the town regions were dispersion areas.<sup>13</sup> There appears to have been a growing concentration of areas of absorption. In the over-all balance of migration (including international) only three of the 25 departments gained (Figure 36). The greatest losses occurred in the interior areas. Four-fifths of the gains were concentrated in the three cities of Stockholm, Göteborg, and Malmö and two-thirds were in Stockholm alone.

Stockholm is often reached by stages of migration from agricultural communities to rural

<sup>10</sup> Dorothy S. Thomas, *Social and Economic Aspects of Swedish Population Movements, 1750-1933* (New York: Macmillan, 1941), Chapters 8 and 9.

<sup>11</sup> Dorothy S. Thomas, "Internal Migrations in Sweden: A Note on their Extensiveness as Compared with Net Migration Gain or Loss" in *American Journal of Sociology* 42(3): 345-357. Nov., 1936. A large interchange of population and volume of total migration relative to net balances is doubtless a general phenomenon though perhaps not with such a high ratio as exists in a relatively mobile population such as the Swedish.

<sup>12</sup> 1895-1904, 1905-1914, 1915-1920, and 1921-1930.

<sup>13</sup> The internal migration movements are analyzed for this period in Sveriges Officiella Statistik, *Folkräkningen den 31 december 1930. II. Bygdeindelning. Folkmängden efter Alder, Kön och Civilstånd. Inrikes Omflyttning (inkl. Fördelning efter Födelsort)*. Pp. 60-131 and 138-250. Cf. also Dorothy S. Thomas, "The Analysis of Internal Migration in the Swedish Census of 1930" in *Journal of the American Statistical Association* 32(3): 124-130, March, 1937, and Jane Moore, *Cityward Migration: Swedish Data* (Chicago: University of Chicago Press, 1938).

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industrial communities, and from these to the towns and finally to the capital. Sometimes the procedure occurs over generations and in any given period does not necessarily involve the same people. Thus the most common pattern is one by which the towns receive migrants from the rural areas and in turn send different people to Stockholm and the largest cities, often displaying little net migration as the result of these compensating movements.

The balance of inter-regional migration, as distinct from rural-urban migration across regional boundaries, is small. The most important inter-regional movement independent of this factor has been the migration incident to the development of the north. Norrbotten, the northernmost department and the scene of great mining operations, is the only Swedish department aside from those containing the three largest cities to show an inward balance of migration from place-of-birth statistics. An interesting feature of the northward migration is its step-like character; the departments in the northern region tended to gain from the neighbors immediately to the south and lose to those adjacent on the north. But the migration movement was numerically small. Owing to heavy losses to Stockholm the northern region as a whole has lost through internal migration in recent decades. Even when the losses to the Stockholm departments are omitted from consideration the total gain by migration in the northern region amounted to only 15 thousand in a district comprising two-thirds of the area of the country.

Migration movements in the other Scandinavian countries parallel those of Sweden, though the information on migratory trends is far less complete. A larger city in a much smaller country, Copenhagen has been an even greater focus of migration in Denmark than has Stockholm in Sweden. In over-all balance of internal migration as measured by place-of-birth statistics greater Copenhagen has registered roughly equal gains (about 200 thousand) from a reservoir of population only half that available to Stockholm in Sweden. Another 100 thousand were gained by the provincial towns, a total of 300 thousand thus being drawn from the rural areas and smaller towns. In the relatively normal 'twenties only four of the 22 Danish departments had inward balances of population movement, and of the four, three are in the corner of Sjaelland dominated by Copenhagen. The net balance of migration favoring the capital was rising in the interwar period. Copenhagen Commune and Department gained 22 thousand from migration in the period 1921-1925, 39 thousand in 1925-1930, and 80 thousand in 1930-1935. In part these figures reflect the decline of emigration out of the country but there is also reason to believe that the capital was becoming more and more important as a focus of internal migration. As in so many other cities the centralizing influence represented in the flow of people to the capital was accompanied by a decentralization of residence in the city itself. In the interwar period the suburbs of Copenhagen were growing much more rapidly than the central city.

Geographically a much larger country than Denmark, Norway has natural barriers that have promoted the development of regional centers and checked the forces of centralization. Furthermore, orientation towards the sea has encouraged the seeking of economic opportunities in overseas countries rather than in the domestic cities. The development of commerce in the nineteenth century brought about some urbanization, but since 1900 the cities have scarcely gained relative to the remainder of the country, and in the decade 1920-1930 increased less rapidly than the rural population.

The apparent ruralization of Norway is, however, largely the product of a statistical artifact by which the growing suburbs of the larger towns count as rural areas. When the population of the environs of the larger towns are bracketed with the urban population, the latter grew

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almost twice as rapidly in the decade 1920-1930 as did the strictly rural population.<sup>14</sup> Though Oslo proper actually lost population in the decade through emigration, the metropolitan area as a whole grew 12 per cent or roughly twice the average of the remainder of the country. In view of the more rapid growth of cities and of rural-urban differences in natural increase there must have been considerable migration to the towns and especially to the Oslo district. This is reflected in the large gain through migration in the province of Akershus, which includes the more important suburbs of Oslo. A similar, but weaker, pull was exercised by Bergen, the second city of the country. The only other significant gain through migration was in the far north, where mining developments have attracted some in-migrants.<sup>15</sup>

In general Norway has shown greater resistance to centripetal tendencies than the other Scandinavian countries. It is apparent that overseas emigration has overshadowed internal movements and that this element, rather than internal migration, explains the great migration losses experienced in most Norwegian provinces (cf. Figure 36, below).

Substantial rural-urban migration, coupled with overseas emigration, is a longstanding process in Scandinavia that has proceeded generally without great stress and strain. In the other countries of Northern Europe it is more recent, and internal migration has been a more violent phenomenon. Thus since 1890 the populations of Stockholm and Copenhagen have each somewhat more than doubled, but in the same period Helsinki, the capital of Finland, has grown five-fold. In contrast with the old established capitals in the other Scandinavian countries Helsinki has emerged relatively recently as the dominant center in the country. Yet the pattern of urbanization has been much the same. In balance of migration determined from place-of-birth statistics the Finnish provinces arrange themselves in accordance with the size and relative attractive power of their chief cities. Uudenmaa, including the city of Helsinki, has drawn a balance of population from every other department. Viipuri, with what was formerly Finland's second city, drew from every other department, but lost to Uudenmaa. Hameen, with the important center of Tampere, has generally gained but has lost to Helsinki and Viipuri. On the other hand the interior provinces, which lack important centers, have lost heavily to all other regions. Regionally the rural-urban movement has meant a southward, and to a lesser extent eastward, drift of population. The lake and forest regions of the interior are being deserted for the southern fringes of the country. As in Sweden and Norway modern technology and the discovery of mineral resources have made possible new settlement and development in the Arctic regions. However, as in these countries also, the movements of people were quantitatively rather small, and certainly not in proportion to the degree of economic development. The migration gains were chiefly drawn from the nearer provinces of central Finland, and not from the cities of the south.

Internal migration and urbanization in Estonia and Latvia have been subject to violent fluctuations incident to political disturbance and war. The cities were not generally founded by the indigenous populations now forming the great majority, but by German and Swedish conquerors, and until recent times the cities were largely occupied by peoples speaking these languages and that of the later Russian rulers. Under Czarist Russian rule, and particularly in the last few decades, internal migration and differential rates of natural increase resulted in the substitution of overwhelming majorities of the local nationalities in the towns. Thus

<sup>14</sup> On this basis the percentage growth for the decade was 8.9 in the cities, 4.6 in the rural districts, and 6.2 in the country as a whole. Norway, Statistiske Centralbyrå. *Folketellingen i Norge 1 desember 1930*. Vol. I. *Folkemengde og areal i Rikets forskjellige deler. Beboede øier. Hussamlinger på landet* (Norges offisielle statistikk. VIII. 182). P. 19\*.

<sup>15</sup> Examination of the origins of persons emigrating from Norway in connection with the general migration balances also suggests some movement into the southwestern region, though this internal movement was far more than balanced by very heavy emigration overseas.

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in Tallinn, Germans were a fourth of the population in 1881, but less than 5 per cent prior to the "return" of the Baltic Germans to the Reich in 1939-1940. During the same period the Estonian-speaking population increased from 54 to 86 per cent of the total.<sup>16</sup> In 1897 only 45 per cent of the population of Riga was ethnically Latvian; by 1935 this proportion had risen to 63 per cent.<sup>17</sup>

The First World War wrought great hardship on these cities and especially on Riga. Food shortages and the flight of refugees probably reduced the population by half from its prewar figure. In the interwar period Riga again grew rapidly but failed to regain its prewar size. The importance of migration to Riga may be judged by the fact that in 1930, 61 per cent of the inhabitants were born outside the city. In balance of internal migration as measured by place-of-birth statistics Riga had gained 148 thousand, a huge total in view of the small population of Latvia. The earlier position of Riga as one of the important cities of Czarist Russia was reflected in the large number of persons born in Russia, and the Russian territories of Lithuania, Poland, and Estonia. Within Latvia Riga has drawn heavily from all provinces but the attraction of the capital was greatest in the neighboring countryside and of declining importance with increasing geographical and cultural differences. Thus a fourth of the persons born in Riga County and living in Latvia had moved from the country to the city, while at the other extreme, in the Jaunlatgales district located on the eastern edge of the country and having a large Russian population, only two per cent of those born in the area had moved to Riga.

Other Baltic cities have apparently played a relatively small role in rural-urban migration, though in Estonia, Tallinn and the nearby town of Nomme attracted considerable numbers in the interwar period, and Tartu, the second city and cultural center, has had some local importance.

### *West-Central Europe*

In those countries forming the industrial heart of Europe rural-urban migration is a long tradition and often is regarded as a major problem. Despite considerable popular interest and a host of special studies on particular areas, statistical information on internal movements is woefully defective. Cross-tabulations on place of birth and residence are unavailable for France since 1911 and for Germany since 1907. Except in the Low Countries the registration systems of the interwar period were too inexact to provide the materials for systematic analysis. Information on the total balance of migration in specific periods is available from census and vital statistics though, as indicated above, these data suggest the direction of migration only by inference, and fail to distinguish between international and internal migration.

This latter defect is especially important in the case of France, where the immigration of foreigners has played such a large role in population trends. From a comparison of those departments showing migratory gains (Figure 36) and those showing a large increase of foreigners (Figure 27) it is apparent that there is a rough correspondence between the two. It would be strange if it were otherwise. But the magnitude of international migration makes it impossible to analyze closely migration trends within France solely on the basis of the over-all balance of migration.

There is no completely adequate method of eliminating the influence of international migration with existing French statistics, but an approximation is possible utilizing census statistics on

<sup>16</sup> Estonia, Riigi Statistika Keskbüroo, *II Rahvaloendus Eestis*, Vol. IV, *Rahvastikuprobleeme Eestis* (Second Census of Estonia, 1934, Vol. IV, Problems of Population), p. 23.

<sup>17</sup> Latvia, Valsts Statistiskā Pārvalde, *Ceturtais tautas skaitlġšana Latvijā 1935 g.*, Vol. IV, *Tautība* (Fourth Census of Latvia, 1935, Vol. IV, Ethnic Nationality).

changes in the number of foreign-born.<sup>18</sup> When the estimated immigration balance from abroad is removed from the migration balances shown in Figure 36, the pattern of internal movement is brought into relief. This pattern is shown in Figure 32.

The removal of external migration balances reveals that there is only a very rough correspondence between the migration destinations of Frenchmen and of foreigners. Paris and the Mediterranean littoral appear to have been quite as attractive to Frenchmen as to foreigners, but it is apparent that the total balance of in-migration in the industrial regions was almost entirely the result of foreign immigration. The northern and eastern frontier regions, containing the major textile and metal industries of France, apparently gained over half a million from abroad in the single decade 1921-1931. In the same period these regions appear to have lost some 170 thousand native French through internal migration. The single department of Pas-de-Calais appears to have gained 145 thousand from abroad, but at the same time lost 60 thousand French to other departments. It is obvious that the industries of the northern departments had little appeal to the mass of Frenchmen in the 'twenties, despite the fact that reconstruction and relative prosperity resulted in considerable industrial expansion in these departments during the 'twenties.

Though the divergence in the direction of migration is most apparent in the northern industrial regions, in other regions there were similar differences of lesser magnitude. Thus stripped of the influence of foreign immigration the large inward balances of the Pyrenees and the Garonne districts of southwestern France (apparent in Figure 36) disappear, and this predominantly agricultural region is shown to be losing population to its two major centers, Bordeaux and Toulouse. In the Alps and in the Rhone Valley the inward balances were chiefly the product of Italian immigration; only in Lyon and its environs was there an inward balance of Frenchmen. In the whole region of Lyon and the Alps and Jura there was a gain of over 250 thousand foreign-born, but a loss of some 65 thousand natives. In the center, foreign immigration appears to have furnished a net gain of about 85 thousand, partly balanced by an apparent loss of 45 thousand native French. In the country as a whole 47 departments showed net gains in the total balance of migration, but only 26 of these were also gaining from internal movements.

Foreign immigration into France has been diffuse. In many cases destinations have been determined as much by the factor of nearness to the country of origin as by the nature of opportunity. Rural areas have been much more attractive to the foreign than to the French-born. Foreigners have been drawn to small industrial towns as well as to the large cities.

By comparison French migration has been focused more sharply on a few centers. Bordeaux and Toulouse have drawn migrants from the Aquitanian plain, Lyon and Marseille have attracted native migrants from the Rhone and the Alps; above all Paris has had that same appeal to Frenchmen that it has so long exercised on other nationalities as the most sparkling of European capitals.

The Paris region, including the Seine and neighboring departments, gained almost a mil-

<sup>18</sup> Thus an increase in the foreign-born between the 1921 and 1931 censuses indicates an immigration balance in the intercensal period. Unfortunately, however, this balance does not measure the actual amount of immigration. In the absence of migration the number of the foreign-born inevitably declines owing to deaths. The increase of foreign-born is therefore a minimum measure of net migration since those dying must be replaced by new immigrants merely to hold the numbers constant. To make allowance for this factor in the computations for Figure 32 the apparent increase in the number of foreign-born in each department was raised by a factor representing the total national gain from immigration (1,760,000) divided by the reported gain in the number of foreign-born (1,325,000). This method is not rigorous. It ignores departmental variations in the proportion of the foreign-born disappearing through death or migration and disregards the international movements of the French-born. Furthermore, it was necessary to compute the internal migration balances on the basis of the present (*de facto*) rather than the legal population used in Figure 28 since place of birth is available only for the former.

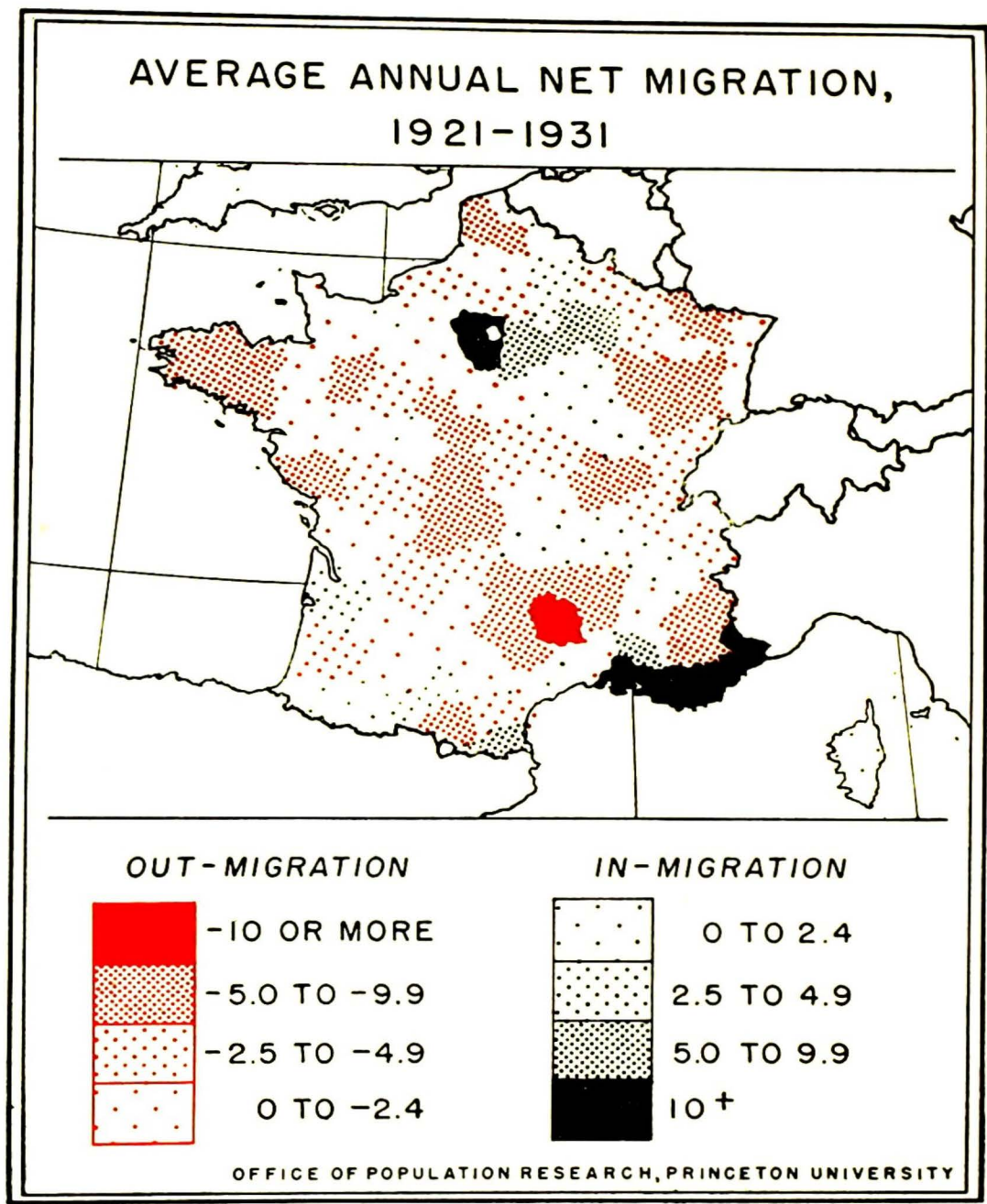


FIGURE 32. Estimated balance of internal migration per 1,000 population in French departments, 1921-1931.



## INTERNAL MIGRATION

lion persons through migration in the 'twenties. This was about half of the net migratory gain of France in the same period. Paris also drew the larger share of the inward balances of internal migration, the Paris region gaining some 440 thousand in the exchanges of population within the country. In terms of numbers the largest groups of provincials in the Paris region were from the North and from Brittany. In relation to the population of origin, the largest percentages have been drawn from the departments of the center and the thinly populated Massif Central.<sup>19</sup>

Notable for their resistance to the pull of Paris are the departments of the Rhone Valley and the Mediterranean littoral. In recent years these favored areas have rivalled Paris in their appeal to French and foreigner alike. The presence of large industrial and commercial centers and the distance from Paris combine to supplement the ancient regionalism of the Provence. Marseille, the chief city of the region, is after Paris the most important destination of migration movements and unlike Paris, the greater part of the inward balance was derived from native French rather than from foreign in-migration. The Mediterranean littoral as a whole gained over half a million migrants in the 'twenties, of which about half appear to have been French.

The relative attractiveness of this region is reflected in the continuation of a large immigration balance in the 'thirties, despite economic difficulties which resulted in a large return migration of foreigners from the North. In the 'thirties the Mediterranean region emerged as the most important district of immigration in France though how much of this was owing to continued Italian immigration and how much to French internal movement is not clear. The experience of the region, however, suggests the possibility of the greater future influence of so-called "hedonistic" motives in migration, in which the beauties of climate and terrain may compete successfully with purely economic advantages of esthetically less attractive regions.<sup>20</sup>

In Belgium, as in France, the pattern of internal migration is obscured by large immigration from abroad. But in Belgium, place-of-birth statistics cross-tabulated with province of residence provide a clearer picture of internal movements. Brussels, as the capital and chief city, has drawn large numbers of Belgians from all the provinces. Antwerp, the Flemish capital and chief port, has appealed almost exclusively to Flemings. Though in-migration has been less than in Brussels the city has grown as rapidly, owing to the higher natural increase of its inhabitants. A third factor in internal movement has been the magnetic force of the great mining and metal industries extending from Mons to Liège. These are the backbone of Belgium's importance as an industrial nation, and have drawn Belgians from neighboring provinces as well as large numbers of foreigners. The Flemish provinces of Flanders and Limburg, and the Walloon Luxembourg are areas of traditional out-migration. In general Flemish areas have lost by migration, both to foreign countries and to the Walloon half of the country.

The large immigration from foreign countries in the interwar period reached every province but centered chiefly in Brussels and the industrial districts of Hainaut and Liège. With the flood of immigration these latter districts apparently became less attractive to Belgians, and the inward balance through internal migration disappeared. Even more than before, Brussels has become the chief destination of Belgian migration.

More than in most countries the currents of internal migration have been a function of differences in natural increase. The Walloon element of the Belgian population has grown

<sup>19</sup> Cf. Bunle, *op. cit.*

<sup>20</sup> Though of course there were also very practical economic attractions in the region as well (e.g., in the development of vegetable and fruit growing for the Paris market).

## EUROPE'S POPULATION IN THE INTERWAR YEARS

little through natural increase in recent years; in fact, since 1932 there has been an excess of deaths over births in the French-speaking sections. The growth of the Walloon provinces in the interwar period was almost entirely due to Flemish and foreign immigration. The Flemings, on the other hand, have had a large natural increase in an already very densely populated area. The flow of internal migration has been a natural equalizing force. The low natural increase in the large cities of Brussels and Liège has created a vacuum attracting the surplus populations of the prolific rural Flemings.

In the Netherlands internal migration has lacked the stimulus both of very sharp differentials in natural increase and of a single dominant metropolitan center. The Dutch, as close cultural relatives of the Flemings, also have high rates of natural growth. Dutch cities, in common with Flemish Antwerp, have a substantial excess of births over deaths. Instead of being concentrated in a single capital the functions of metropolitan centers are distributed among three cities of comparable size and importance. Historically the chief urban center of the country and still the largest city, Amsterdam has been divorced from many commercial functions by geography and from some administrative functions by tradition. Rotterdam and The Hague are rival cities, the latter particularly having gained importance in the interwar period. These cities, with Utrecht, form the urban triangle of Holland that has absorbed population from the other provinces of the Netherlands. In the interwar period the three provinces in this area gained 190 thousand by migration, the balances probably deriving chiefly from the province of Zeeland and the rural North. The remaining provinces occupied an intermediate position. There were some gains, notably in the province of Limburg, during the 'twenties, but general losses through migration in the 'thirties. In the latter decade migration from the traditional areas of dispersion was on a smaller scale than previously but gains were more concentrated in the urban provinces.

An interesting facet of internal migration in the Netherlands is the prospect of movement into the polders reclaimed from the Zuider Zee. Up to the outbreak of war this had only begun, and the destruction of dikes and flooding for military purposes will undoubtedly retard future development.

Even more than the Netherlands, Switzerland differs from the majority of European countries in the absence of a dominant capital functioning as the chief final destination of the balance of internal migration. Mountain barriers and linguistic differences have strengthened Swiss economic and cultural regionalism and promoted the diversification of migratory currents. Bern, the political capital, is not important as a center of in-migration. Zürich, as the largest city, is the economic capital of the Confederation and chief destination of migration from German-speaking areas. In this movement Basel functions as a secondary and local center of attraction. There has been a large interchange of population across the border with Germany.

Though it contains no major metropolitan centers, French Switzerland has drawn migrants from other regions, though its towns have not grown so fast as those of German Switzerland.<sup>21</sup> But high standards of living and exceedingly low birth rates have created incentive and opportunity for in-migration. Italian-speaking Ticino has lost comparatively small balances to Zürich and French Switzerland, which losses have been more than replaced by substitute immigration from Italy.

Incident to the First World War Switzerland lost much of her foreign population. Most of the cantons, and the country as a whole, were losing population through migration. The only significant gains in total balance of migration during the 'twenties were registered in

<sup>21</sup> As recently as 1870 Geneva was the largest town in Switzerland, but is now the fourth city with little more than a third the population of Zürich. The population in the area of 1930 was declining in the interwar period.

## INTERNAL MIGRATION

Zürich, Basel, Geneva, Vaud, and Ticino. Both French- and German-speaking areas were generally losing in rural-urban migration. In terms of larger regions the two sections dominated by Zürich and Basel were gaining and other German-speaking regions were losing. French Switzerland as a whole lost owing to the net departure of foreigners, despite the establishment of international agencies at Geneva, and within the French-speaking area there was a substantial movement from rural Fribourg, Neuchâtel, and Valais to Geneva and the towns of Vaud. Ticino continued to serve as an entrepôt for Italian immigration.

Though internal migration and especially its rural-urban phases have been of absorbing interest to German scholars and statesmen, German statistical information on these movements is scarcely more adequate than that of France or England. Studies of special areas of Germany based on sample statistics or on police registration systems probably total in the hundreds, but general analysis of recent movements is of necessity based on inference from migration balances in intercensal periods.<sup>22</sup>

Historically internal migration in Germany has been dominated by two trends: (1) movement from East to West and (2) within each region, the *Landflucht* or rural exodus. Differentiation of the two movements is substantially a question of long-range versus short-range migration, since the westward drift is in itself basically a rural-urban movement. The typical out-migrant from the East was a peasant or agricultural laborer seeking better economic opportunities in the cities or industries of the West.

The early statistics on place of birth show a very large drain of population from the eastern provinces. In 1900 the five eastern provinces of East Prussia, West Prussia, Posen, Silesia, and Pomerania had lost a balance of 1,619,000 through emigration, the percentage losses being greatest in the border marches of East Prussia and Posen, least in the industrial districts of Silesia. The flight from the eastern provinces sought chiefly two destinations: the nearby Berlin-Brandenburg province and the more remote factory towns of Westphalia and the Rhineland. Poles were numerous in the latter movement. Lesser magnets to eastern out-migrants were the older industries of Saxony and the rapidly growing city of Hamburg. In addition Hamburg and the other Hanseatic cities were important foci of migration in their own regions, as were the great industrial towns of the Ruhr and Rhine. The South participated little in inter-regional migration, though Alsace-Lorraine drew migrants from a large area. Within the South, Württemberg had been a region of population dispersion for centuries and migratory currents in Bavaria were directed largely to the expanding towns and particularly to Munich.

In Imperial Germany there was a definite continuum of migratory choice, ranging from remote and agrarian East Prussia, which lost in balance to every other province, to Berlin and the Hanseatic cities which gained from all corners of the Reich. After the war the pattern of choice remained substantially the same with the important difference that the Rhenish-Westphalian district was no longer especially attractive to migrants. With the onset of depression it became an area of dispersion.

Under National Socialist control there were further significant changes in the traditional pattern. It is evident from Figures 36 and 37 that far more of Germany gained by migration in the 'thirties (i.e., 1933-1939) than in the earlier period (i.e., 1925-1933). This is attributable

<sup>22</sup> Nativity statistics, cross-classifying place of birth and residence, were last tabulated for Germany in the occupational census of 1907.

An exceptionally good review of German approaches to the question of internal migration, together with an annotated bibliography of the chief German contributions in this field, are contained in two large appendices by Rudolf Heberle in Dorothy S. Thomas, *Research Memorandum on Migration Differentials* (New York: Social Science Research Council, 1938), pp. 269-341. In the same volume, pp. 342-365, there is a good review of the methods and sources of German internal migration statistics by Fritz Meyer.

to the net gain in the old Reich of 502 thousand by international migration, as contrasted with the net loss of 234 thousand in the previous period. The greatest inter-regional movement continued to be the retreat from the eastern border areas to the interior of the Reich, and in the Nazi years this movement was re-enforced by a flood of ethnic Germans from the Sudetenland and from Lower Austria seeking employment in the expanding armament industries. But in keeping with trends already observable in the 'twenties, there was a definite movement from the Rhineland-Westphalia industrial region to the interior. The old industrial areas in Saxony also lost heavily. The center and the northwest, much of which formerly had been a rather passive region in the balance of internal migration, emerged as very active centers of in-migration. To some extent this development was the result of the deliberate policy of moving vital armament industries to areas more remote from attack in the West, though other factors, such as the increasing use of Swedish iron ore, were more important in the relocation of industry and population.

Despite Nazi dogma and policy the quantitatively most important migration continued to be rural-urban. Communities with populations of less than 2,000 (rural populations as defined by the German census) lost 959 thousand persons through out-migration in the six years 1933-1939. In almost all districts the rural *gemeinde* lost; in the Sudetenland and in the rural Allenstein district of East Prussia more than 10 per cent of the rural population was lost through migration. Rural areas gaining population through migration were located in the environs of the large cities.

In the Nazi period small cities were more attractive to migrants than the metropolises, though it is very doubtful if Nazi fears of urban decadence and "asphalt intellectualism" were a decisive factor in this development. The apparent dispersion of population and industry may in part reflect attempts to scatter armament factories and provide less concentrated targets to air attack. It is certainly due in part to the fact that military barracks were disproportionately located in the smaller towns.<sup>23</sup> A further element in the apparent decentralization may be the suburban drift, which was evident prior to Nazi domination. Thus between 1933 and 1939 the city of Berlin gained only two per cent by migration, but the surrounding district of Potsdam gained 16 per cent.

### *Central Europe*

The collapse of the Austro-Hungarian Empire in World War I inevitably disrupted channels of migration in Central Europe developed over centuries of political unity. The most important of these, numerically speaking, were those affecting the western sections of the Empire with their relatively mobile populations. In the more backward eastern regions there was little exchange of population in any event.

The Austro-Hungarian Empire was generally a country of out-migration with large emigration to overseas countries and lesser overland movements to Saxony and German Silesia. Within the Empire the dominant movement was short distance migration from rural districts to urban centers, the attractive power and range of influence of each center being roughly proportionate to its size. Inter-regional movements were of relatively small quantitative importance, especially if they involved the crossing of linguistic frontiers. The outstanding exception was, of course, the cosmopolitan city of Vienna that drew mass migration from Czech and Slovak, as well as German-speaking, districts. Even as regards Vienna the cityward migration was clearly selective of German-speaking elements. Thus in Bohemia and Moravia

<sup>23</sup> Thus soldiers conscripted from rural communities (or large cities) whose units were stationed in small towns at the time of the census count as migrants from these communities.

## INTERNAL MIGRATION

the heaviest sources of migration to Vienna in relation to population were German-speaking districts, the cities of Prague, Brno, and Plzen being important alternatives for Czech migrants. German-speaking sections of Silesia were a greater source of migrants than Czech areas closer to Vienna. Despite physical proximity to the imperial capital Hungarians were never drawn in large numbers. In Hungary and to the south, German linguistic islands contributed to the Viennese population far out of proportion to their populations.

In fact, the most significant feature of migration within the Empire was a displacement of German-speaking populations on linguistic frontiers (a) through the emigration of German elements, chiefly to Austria proper and (b) through short distance infiltration of neighboring Slavic, Hungarian, and Italian populations. Thus Poles were displacing Germans in Galicia, Italians were moving into the German Tyrol, and the Germans of Hungary were retreating through differential migration and lower natural increase. In northern Bohemia German-speaking populations were emigrating heavily across the boundary to Saxony, while Czechs were taking their places in the Sudetenland.

The interwar period witnessed the disruption of old lines of inter-regional migration but altered the general pattern less than might be expected. The movement from South Bohemia to Vienna was reduced, as was the comparable but lesser migration of Slovaks to Budapest. Certain specialized migrations incident to the economic development of the Empire were suspended. Thus the ports of Trieste and Fiume, which had drawn population from Slovene and Croat hinterlands, were less attractive to these groups under Italian sovereignty. Polish migration to the Teschen area was reduced by the establishment of a political barrier between Czech Silesia and Galicia.

Despite these changes the basic pattern of migration remained substantially unaltered in the 'twenties. Areas of in- and out-migration continued the same, although the direction and outlets for migration were sometimes different. Thus in Austria proper the three western Länder of Salzburg, Tyrol, and Vorarlberg continued to be regions of modest immigration as in the prewar years, while the remainder of Austria, aside from the larger cities and the environs of Vienna, continued to have a negative balance. Aside from the city of Vienna and its environs the gains and losses were of comparable rate and magnitude.<sup>24</sup> The withering of Vienna's hinterland is reflected in her declining attractiveness to immigrants. In the decade 1900-1910 Vienna drew a balance of 141 thousand, in 1923-1934 only 49 thousand.

The stifling of Vienna naturally reacted on those populations of Czechoslovakia that had formerly found outlet in migration to that city. Nevertheless, in the interwar period the southern rim of the country continued in its traditional role as an area of heavy emigration. In the single decade 1921-1930 the three southern districts of Plzen, Ceske Budejovice, and Jihlava lost over seven per cent of their populations through out-migration. Only the direction of the migration was changed: from the old capital in Vienna to the new one in Prague. In the remainder of Bohemia and Moravia the general currents of migration remained the same, though the attractiveness of Prague was generally enhanced by its emergence as a political as well as a cultural capital. The large cities such as Brno and Plzen gained; there was a large exodus from most agricultural areas.<sup>25</sup> As before there was a drift of Czech immigration into the industrialized Sudeten Erzgebirge, and as before the German elements were being gradually displaced by Czech in-migrants.

Inter-regional migration within Czechoslovakia has been largely confined to the western

<sup>24</sup> Cf. Austria, Statistische Zentralkommission, *Die Ergebnisse der Volkszählung vom 31. Dezember 1910*. Vol. I, Part 1, p. 29\* and Austria, Bundesamt für Statistik, *Die Ergebnisse der Österreichischen Volkszählung vom 22. März 1934*, Vol. II, pp. 6-7.

<sup>25</sup> Cf. International Labour Office, *The Rural Exodus in Czechoslovakia*. (Studies and Reports, Series K, No. 13.)

and more developed sections. The proximity of Slovak areas to Vienna and Budapest brought about some migration to these centers before the First World War, but there has been no diversion to Bohemian cities comparable to that in South Bohemia and Moravia. The surplus population of the overcrowded mountain valleys of Slovakia have rather sought overseas destinations, and the eastern provinces have even had a small inward balance of internal migration through the influx of Czech officials and teachers.

The pattern of internal migration in Hungary is a simple one: from all areas to Budapest. The capital and its environs have no rival as the industrial and commercial center of the compact nation. Population flows freely to the capital from all corners of the country with only minor points of resistance in a few of the larger towns. Aside from the capital and its satellite cities the only important focus of in-migration was in the Baranya (i.e., the towns of Pecs and Baja).

### *Eastern Europe*

Materials on the migratory currents within Eastern Europe are very scant, and those that exist are often subject to misinterpretation. Thus in Poland reliance must be placed on indirect measures of internal migration, some of which may be misleading. Place-of-birth statistics are absent and the only generally available measure of migration is the total migration balance, which includes international as well as internal migration.

A cursory glance at the balance of migration in Polish departments during the 'twenties (Figure 36) might suggest that eastern Poland is one of the chief areas of in-migration in Europe, and that very heavy out-migration is confined to the western province of Posen. Such a picture, which could be readily derived from the apparent statistical facts, would be completely erroneous.

In actual fact, the balance of migration as derived from Polish census and vital statistics is biased (a) by the admitted defectiveness of the 1921 census in the eastern areas and (b) by the under-registration of births in the central and eastern departments. Both of these defects tend to maximize apparent in-migration balances and minimize or eliminate out-migration balances.<sup>26</sup> Perhaps even more important, the intercensal period covered (i.e., 1921-1931) included in its early years very heavy repatriation of war refugees in the eastern and central regions and a lesser return movement to Galicia in the south. According to official statistics the repatriations occurring *after* the census of October 1, 1921 totalled 530 thousand. The apparent inward balance (as measured by census and vital statistics) of the four eastern departments plus Bialystok was 444 thousand, a figure probably fully explained by this return migration from war displacements.<sup>27</sup> In view of the previously noted statistical biases it seems

<sup>26</sup> Thus if the 1921 census had many omissions the apparent population growth between 1921 and 1931 is greater than the actual. If many births are not registered the actual natural increase must be greater than that reported. Since the migration balance is measured by differencing growth and natural increase, an exaggeration of growth and an under-reporting of natural increase would tend to widen the margin between if growth exceeds natural increase (i.e., a situation of in-migration) or to reduce or eliminate the difference if natural increase exceeds growth (i.e., out-migration). Cf. Poland, Office Central de Statistique. *Problèmes démographiques de la Pologne* (In Polish), Statistique de la Pologne, Série c, Fascicule 41, especially Part I, Ch. 2, and Part II. Though the author (Stefan Szulc) emphasizes the importance of under-registration of births (and to a lesser extent deaths) in former Russian territories, there also is some reason to suspect some under-reporting of vital phenomena in the Ukrainian sections of Galicia.

<sup>27</sup> A detailed comparison of counties gaining by migration and the reported destinations of repatriates shows a very close and reasonable correlation between the two. Cf. Stefan Szulc, "Sur l'accroissement de la population en Pologne à la période de 1921-1931" (In Polish), *Revue trimestrielle de statistique de l'Office central de statistique de la République Polonaise*, Vol. IX, No. 1, pp. 31-40. The detailed figures are given in "Les éléments de l'accroissement de la population à la période de 1921-1931" (In Polish), *Informations statistiques de l'Office central de statistique*, Vol. X, No. 4, pp. 73-80. Feb. 5, 1932.

likely that the eastern districts were losing rather than gaining population through migration aside from the repatriation of war refugees in the early years.

It is probable that the more typical trend of internal migration in the country as a whole was that revealed in western Poland, where the statistical sources are more reliable. In this area the data show a depopulation of the countryside paralleled by a rapid growth of cities or (as in Silesia) of industrial populations in smaller communities. Internal migration is difficult to determine precisely owing to the importance of international migration from Poland, but the very large in-migration balance of the principal cities and their environs is clear evidence of a substantial rural-urban movement.<sup>28</sup>

This movement appears to be most important in former German Poland and in the westerly regions dominated by the three centers of Warsaw, Lodz, and Cracow. In eastern Poland the attraction of the towns apparently was much less.<sup>29</sup> In general Polish populations appear to have been more susceptible to urbanization than other Slavs in Poland. Where Poles formed minorities or islands of settlement among Ukrainians and White Russians the Polish element was being reduced by differential emigration to foreign countries and out-migration to predominantly Polish cities such as Lwow and Wilno. Thus in the salient of Polish settlement reaching across eastern Galicia to Tarnopol most Polish areas displayed a heavy migration loss, as contrasted with small losses or gains in the Ukrainian districts.<sup>30</sup>

Information on internal migration in the Balkans is as fragmentary as for Poland. The typical Balkan peasant did not move unless forced to by war or governmental edict. Consequently internal migration was generally small. In the region as a whole about three-fourths of the native-born population in the interwar period was living in the commune of birth and over nine-tenths apparently remained in the same district.<sup>31</sup> Only in recent years has the immobile Balkan peasant begun to respond to the economic attractions of distant lands and to the emerging cities of his own region.

The only important focus of long distance migration within Yugoslavia is the capital city of Belgrade. One of the smallest capitals in Europe, Belgrade has grown very rapidly through migration. The population of the city has come from every section of the new country, but there has been some selection in favor of Serb elements. Zagreb, the Croat cultural center, has also grown rapidly though its influence is regional rather than national. In the balance of internal migration as measured by place-of-birth statistics (Figure 31) Vardar (old South

<sup>28</sup> Migration balances for small areas as determined from vital statistics and intercensal growth are presented in a map prepared by W. Ormicki in *Revue Mensuelle de Géographie* 10(8-10): 118-120. Krakow, 1932.

<sup>29</sup> In a comparison of the growth rates of towns and of total populations in small districts Wiktor Ormicki found that in a large section of eastern Poland the urban population grew less rapidly than the total between 1921 and 1931. "Un coup d'oeil sur le développement de l'urbanisation en Pologne au cours des années 1921-1931" in *Congrès international de la population* (Paris, 1937), *Démographie statistique* (Vol. IV of the proceedings), pp. 138-147. There are several possible explanations of this apparent de-urbanization which do not entail the assumption of the migration from town to country: (1) At the time of the 1921 census large numbers of refugees were temporarily quartered in the towns prior to their return to the land, and were enumerated as town population though that was not their usual residence. (2) It is likely that the 1921 census was more complete in the towns than in the countryside in view of the unsettled conditions of the times. If this were true the apparent growth of the rural population would be exaggerated relative to that of the towns. (3) Differential emigration of Jews, who form the largest element of the urban population in this area, probably contributed to the relatively low growth rate of the urban population. (4) The rate of natural increase is lower in the towns, so that in the absence of migration they would have a lower rate of growth than the rural population.

<sup>30</sup> Cf. Jerzy Smolenski, "Le répartition de la population ayant pour langue maternelle le polonais sur le territoire de la République Polonaise" in *Revue trimestrielle de statistique de l'Office central de statistique de la République Polonaise*, Vol. X, No. 4, pp. 454-460.

<sup>31</sup> Thus of the native-born population of Yugoslavia 78 per cent were living in the commune and 94 per cent in the banovine of birth. The corresponding figures for Greece were 75 for communes and 92 for regions of birth. There are no figures available for Rumania. Seventy-nine per cent of the native-born Bulgarians were reported in the locality of their birth.

Serbia) has been the most favored banovine after the capital, but the net balance of immigration is very small except for the movement from neighboring Zetska (Montenegro). The mountains of Dalmatia and Montenegro have been a region of dispersion for internal migration as well as the chief source of emigration to overseas countries. There has been a general, though diffuse, movement from these regions and Bosnia to more favored and less overpopulated sections of the country.

Despite enormous exchanges of population with neighboring countries the volume of inter-regional migration in Greece was relatively small, with the exception of the movement to the capital. In the interwar period Athens and its port of Piraeus were growing rapidly in commercial importance in company with the expansion of the Greek merchant marine. In addition to some 300 thousand refugees from Turkey, Central Greece has attracted a balance of over 200 thousand through internal migration from other regions. It seems probable that the Athens agglomeration even in 1928 had gained at least 500 thousand persons through immigration. Internal migrants were drawn chiefly from Old Greece. Contributions were especially heavy from the Peloponnesos and from the islands, whose sea-faring people found a natural outlet for their talents in the growing port and fleet of Greece. More than a fourth of the population born in the Cyclades had moved to Central Greece, and there were substantial movements from the Aegean Islands, from the Ionian Islands, and from Crete. Epirus was also an area of dispersion, while Macedonia drew small contingents of Greeks through internal migration as well as very large numbers from abroad. The 'thirties witnessed further large migratory gains to Athens and also to Salonika, but detailed analysis of these movements, on the basis of the 1940 census, is not yet possible.

In Bulgaria, as in Greece, the dominant source of migration has been international exchanges of population. Such internal migration as has occurred seems to have been directed to Sofia, the capital and one large city. The district of Sofia was the only one to gain in the balance of migration (Figure 36).

Migratory movements within Rumania are very poorly documented.<sup>82</sup> The chief internal movement appears to be associated with the phenomenal growth of Bucharest, which has almost tripled in size since 1912 and is now a city of a million inhabitants. There has obviously been in-migration into the area of the Ploesti oil fields, and the central province of Muntenia as a whole has gained through migration. Transylvania lost through migration between 1930 and 1941 but it seems probable that this loss is wholly attributable to the outward movement from the territory annexed to Hungary by the Vienna Accord of 1940. There was a movement of Hungarians to Budapest from the annexed area and a flight of Rumanian refugees from the same territory. The Banat, as a region of low birth-rates and comparatively high levels of living, seems to have drawn some internal migration. The Dobrudja lost heavily, owing to the flight of Rumanians from Bulgarian annexed territory and owing to the emigration of Moslem elements during the 'thirties.

### *Southern Europe*

In Eastern Europe the flood tides of internal migration that in Western countries have produced the great cities were just getting under way in the interwar years. In Southern Europe this process is much further advanced. The traditional immobility of the peasant has been

<sup>82</sup> The only statistical measure of migration in Rumania in the interwar period is derived from the censuses of 1930 and 1941 (in the reduced area of that year) and vital statistics of the intervening years. The average annual rates of migration so derived are shown in Figure 37. They include refugee movements incident to territorial changes of 1940 as well as the more normal internal movement of the 'thirties. Data for Transylvania and the Dobrudja were based on the Hungarian and Bulgarian censuses of 1941 in the ceded areas as well as the Rumanian census in the sections of these provinces remaining in the possession of that country.



effectively shaken except in the more remote corners of the two Latin peninsulas. This has been the result (1) of closer contacts with overseas lands, (2) of the existence of important and long-established commercial and industrial centers within the area, and (3) of great regional differences in the degree of economic development. Though greater mobility has found expression in emigration overseas and to other European countries, important internal movements have also developed. In both Italy and Spain there have been two competing foci of in-migration, one deriving its importance chiefly from economic development, the other from its importance as a political capital.

In Italy the re-establishment of Rome as a political center is measured by its attraction of population from all other parts of Italy (Figure 31). Of rival magnetic force were the industrial and commercial regions of the northwest. The three departments of Piedmont, Lombardy, and Liguria in 1931 had gained 600 thousand in the balance of internal migration as measured by place-of-birth statistics. This contrasts with 350 thousand gained by Lazio (i.e., Rome).

The most favored Italian department in migration choice was Liguria. This pleasant district, comprising the Italian Riviera, the naval base at La Spezia, and the great port of Genoa, gained population from all other departments. Lombardy and Piedmont, with their great cities of Milan and Turin, were almost as attractive, in balance gaining from all regions except Rome. Some of this movement consisted of laborers from the poverty-ridden South. Each of the southern departments, as well as Sardinia and Sicily, sent a significant number of workers to feed the industries and enjoy the higher living standards of the North. But the mass of wage-earners drawn to the factories and shops of Piedmont and Lombardy travelled short distances from the lower valley of the Po. Confined by the shortage of land and the smallness of their holdings, the prolific families of Emilia and Veneto have sent their young folk abroad or to the great towns, where better opportunities were to be had. Some, especially from Veneto, have also pushed up the mountain valleys of the Tridentina and contributed much to the growth of Fiume and Trieste in the Julian salient held by Italy between the wars.

Though the current of migration has tended to flow uphill away from lowlands of the Po, it is nevertheless true that for shorter migration within smaller districts the law of gravity generally asserted itself. One of the most popular subjects of Italian research is the *spopolamento della montagna* and few countries devote equal attention to the relationship between population and altitude of residence. The slopes of the spiny Apennine Chain reaching down the Italian peninsula provide a poor living to their inhabitants. For many years these populations have been flowing into the valleys, denuding the mountain tops of their surplus population, though insufficiently fast to leave an adequate living for those that remain.

The South has lost population to the other regions. Reduced by union and tariff policy to a colonial status as an agricultural hinterland for the industrial North, economic and cultural development has been slow. Once the largest city in Italy, Naples has fallen behind in recent decades, and its attraction to migrants has been small.

During the interwar years the pull of Rome surpassed that of the North. Lazio, including the capital and the nearby Littorian settlements established in the Pontine Marshes, gained ten per cent in total balance of migration while the major industrial departments of Piedmont and Lombardy drew very small inward balances. The latter were gaining from other areas but were in turn losing to France. For the years 1931-1936, when it is possible to determine the balance for the provinces as well as for the large compartimenti, the city of Rome and its environs are found to have grown very rapidly. In the course of the interwar period, Rome almost doubled its population, chiefly through migration. The Eternal City passed Naples in

## EUROPE'S POPULATION IN THE INTERWAR YEARS

the 'twenties and in the 'thirties finally displaced Milan as the largest Italian city. In the North, gains through migration have been chiefly centered in Milan, Turin, Genoa, and Bologna. These cities continued to draw migrants even in the depression years.

Though the country is in a more primitive stage of economic development, Spain has had currents of internal migration similar in pattern to those of Italy. Set in the heart of the country, Madrid has drawn its population from all quarters of the land. As the long-established political capital of great historical importance, it has been the center of Spanish life. Nevertheless, its location in the arid and mountainous interior has weakened its strength in an age of growing commerce and industrialization. The Spanish population is concentrated in the more favorable coastlands; the interior is hollow, a thinly settled region by European standards. Stimulated by greater contact with more developed countries and by the presence of greater natural resources, industry and commerce have latterly blossomed in the North. Industry has flourished especially in Catalonia, whose regional capital of Barcelona became the largest Spanish city in the interwar period. In their narrow coastal country at the other end of the Pyrenees the energetic Basques have created another important regional center of commerce, and further west, in Asturias and Galicia, the exploitation of mineral resources has further shifted the economic center of gravity northward.

In the struggle between the two poles of attraction, the political represented by Madrid and the economic represented by Barcelona, the latter was gaining up to the outbreak of civil war. In the balance of interprovincial migration as measured by place-of-birth statistics in 1930 both had gained over half a million (Figure 31), but the pull of Barcelona was greater in the later years and much more intense in the narrow Catalonian and coastal hinterland from which it has recruited most of its people.

No other regions or cities rivalled the two metropolises in their attractiveness to migrants. There were three other regions of in-migration. The most important were the Basque provinces of Vizcaya and Guipuzcoa, tucked in the corner of the Bay of Biscay adjacent to France. Another, with two minor centers of attraction, was to be found in the Andalusian cities of Seville and Cordoba in the South. Seville, especially, has served as an outlet for the excess populations of Extremadura and Andalusia, peoples that have traditions of emigration dating back to the early days of Spanish colonial glory. A final in-migration point of local importance is Valencia, third city and an important Mediterranean port. Despite the recent growth of mining activity in the Northwest this area has not attracted migrants. As the most overpopulated region of Spain, Galicia has been well able to supply the necessary labor for its own mines.

These migratory movements are reflected in the migratory balances of the 'twenties (Figure 36). The Civil War naturally disrupted normal internal migration. Few evidences of its net effects are available. The 1940 census is suspect in that it shows almost as rapid population growth in the 'thirties as in the previous decade.<sup>88</sup> For what it is worth, this census suggests relatively normal trends in most of Spain, but less than normal growth or population loss in Catalonia, in the Basque districts, and in the battle areas of Toledo and Guadalajara. In many respects the Revolution was a reaction of the conservative and backward South and Center against the growing strength and challenging ideas of the North. The victory of the Franco regime consequently resulted in great hardships to the centers of Republican resistance

<sup>88</sup> The intercensal growth for 1920-1930 was 2,261 thousand or 10.6 per cent of the 1920 population. The reported census population of 25,878 thousand (revised downward from 26,222 thousand) postulates an intercensal growth in 1930-1940 of 2,314 thousand or 9.8 per cent of the 1930 population. Though emigration was much reduced in the decade (there apparently was an inward balance of return migration from overseas) the war casualties and absence of refugees in France at the taking of the 1940 census make the reported 1930-1940 growth seem implausible. The differencing of reported intercensal growth and reported natural increase postulate a two per cent immigration balance in the country as a whole, but the vital statistics are clearly defective.

and a serious set-back to their further economic development and attractiveness to migration.

Internal migration in Portugal is small. The Portuguese peasant is among the least mobile in all Europe. In most districts ninety per cent or more of the inhabitants were born in the locality of residence. The overpopulated North has furnished most of the Portuguese emigration overseas, this being reflected in strong negative migration balances (Figure 36). The upland Traz-os-Montes and Beira provinces have much in common with neighboring Spanish Galicia. Such internal migration as has occurred has been directed either to Lisbon and Oporto, which are the only two cities of consequence, or to the thinly populated southern provinces of Estremadura and Alemtejo. The only internal migration of any quantitative significance has been directed to the capital.<sup>84</sup>

#### *Factors Affecting Internal Migration*

Viewing the European scene as a whole, the pattern of internal migration is simple in its net results, but of extreme complexity as regards its component elements. Thus in its net results European internal migration has been almost universally centripetal. This was true before World War I; it was equally true of the interwar period. Centralizing tendencies have persisted through depression and in the face of strong governmental attempts to reverse them. Everywhere rural areas have lost population to the towns; almost as universally the smaller towns have given up population to the larger cities. Among the cities purely industrial towns have surrendered people to the great commercial and administrative centers.

On the other hand it is important to recognize that the net balances of migration are residuals of very complex and selective migrations. Net balances of migration represent only a small portion of the total movement. Space does not permit a full analysis of the extremely complicated network of movements involved, nor of the important selective factors affecting the demographic composition of these movements. The selective elements have been the subject of interesting studies where materials are available,<sup>85</sup> but such analyses are necessarily beyond the scope of the present general survey of Europe.

The net results of internal migration reviewed above point to the great importance of rural-urban migration in the total migration picture. In some countries internal migration is almost equivalent to rural-urban migration. Even inter-regional migration upon analysis is commonly found to be a movement from the rural areas or small towns of one region to the cities of another. Other non-urban movements have been of small consequence. The northward migration in Scandinavia, the eastern settlement projects in Germany, the general dispersion of population from the mountains of Yugoslavia, the Littoria settlements in Italy, and similar non-urban movements have all been mere ripples across a cityward tide. The factors affecting net internal migration in the interwar period were therefore chiefly those stimulating or inhibiting rural-urban migration and the drift from small town to large city.

<sup>84</sup> The apparent in-migration balances in the South are probably largely fictitious. There is reason to suppose that the reported vital statistics underestimate natural increase and hence exaggerate apparent in-migration and minimize apparent out-migration. Thus despite evidence of considerable overseas emigration from other sources the balance of intercensal growth and reported natural increase for the 'twenties gave a net emigration of under 10 thousand for the country as a whole.

<sup>85</sup> An extensive and well-annotated bibliography of German, English, and American studies on the causes and selective factors involved in migration is given in Dorothy S. Thomas, *Research Memorandum on Migration Differentials*, *op. cit.*, Appendices A, B1 and B2. Owing to the high quality of the source materials the most complete studies have been carried on with reference to Sweden. A good German study, making careful use of indifferent source data, is that of Rudolf Heberle and Fritz Meyer, *Die Grossstädte im Ströme der Binnenwanderung* (Leipzig: 1937).

*General Conditions of Rural-Urban Migration*

Though it is one of the most universal social phenomena of contemporary Europe, the causes of rural-urban migration are the subject of much disagreement. Extensive controversies have raged over the relative importance of "push" and "pull." The relative ease and attractiveness of urban living, the amenities of a technological civilization, the wage differentials favoring non-agricultural employment—these are presumed to lure the peasant from his native heath. Many have sought the cause of the cityward flood at its source: the peasant is presumed to be driven from the land by systems of land tenure, by the laws of inheritance, and by the limited capacity of agriculture to provide profitable employment.

A common difficulty in the analysis of rural-urban migration is the failure to distinguish between specific situations providing the immediate incentive to migration and the larger cultural framework prerequisite to a substantial rural-urban movement. The numerous attempts to generalize regarding the motives for migration from the study of special areas inevitably run foul of the fact that rural-urban migration is a well-nigh universal phenomenon in Western and Central Europe.

The rural exodus has appeared in widely contrasting agricultural systems. The large estates of East Germany and Hungary have lost many of their laborers and "deputatists" to the cities. But the tiny peasant holdings of western Galicia, and the medium holdings of Sweden have also supplied their quota. There is no clear distinction in migration between areas of primogeniture and those of divided inheritance. There has been heavy rural-urban migration in regions of tenancy, such as England and southern Italy, but also in regions of peasant ownership. In areas as widely scattered as Scotland, central Finland, and the Apennine valleys of Italy farmers have streamed cityward from poor lands. They have come in even greater numbers from the best agricultural lands in Europe in the Po Valley, in the Hungarian plains, and in the lower reaches of the Rhine. There have been large movements from areas of primitive agriculture with defective techniques and little capital. But the areas of highest agricultural capitalization in Europe, such as those of Denmark, the Netherlands, and Switzerland have been quite as susceptible to the attractions of nearby towns and cities.

The intensity of internal migration in Europe is generally related to the advance of modern influences, of which it is itself a functional part. Internal migration is a form of social mobility. In regions where the old pattern of village life still prevails, with its strong communal ties, its adherence to ancient traditions and customs, and its self-sufficient economy, there is little internal or rural-urban migration. The degree of immobility still observable in the Balkan mountains was once characteristic of all of Europe. But the advance of the modern world across the continent has pushed this pattern into the remote and inaccessible peripheries of Europe or into pocket recesses passed over in the march of economic progress. Modern technology has given non-agricultural occupations great advantages over agriculture as a means of profitable employment. Everywhere in Europe urban occupations are more remunerative in terms of wages than agriculture.<sup>36</sup> Where the returns from agriculture are relatively high, as in Scandinavia, in England, and in the Low Countries, the industrial wages are even higher. Where the wage-scale of agricultural labor and the returns from agriculture are pitifully small, as in much of Eastern Europe, urban wages are likely to be low, but still superior to those of rural employment. In most countries these differentials are perpetuated and accentuated by the higher fertility of the rural populations. Therefore, to the extent that monetary

<sup>36</sup> Cf. "Statistics of Agricultural Workers in Various Countries, 1927-1934" in *International Labour Review* 30(5) : 692-708 and 30(6) : 844-865, November and December, 1934, for a general survey of agricultural wages and numerous articles in the same publication on wages in various industrial occupations.

criteria prevail there is an almost universal incentive to leave farming for other employment.

Migration is thus not only an expression of differences in opportunity but also of the realization and appreciation of those differences. Realization arises both from wider contacts with the "outside" world and from the gradual infiltration of urban values. Better roads, the construction of railways, and the development of commerce provide a channel for the diffusion of knowledge regarding economic opportunities elsewhere. These contacts and the stimulation of public education lead to the breaking down of the "cake of custom" and the substitution of urban standards for those of the old peasant community. This is manifested in the loss of class pride among the peasants, and changing emphasis from land to money as the criterion of economic value. It has been observed that peasant women often like to marry out of their class and that in their aspirations few rural boys hope to follow their fathers' occupations. They wish to leave agriculture because "the work is too hard" and because they can "make more money" in other occupations. When urban values have thus captured the imagination of the peasants rural-urban migration is inevitable.

Rural-urban migration is thus a general phenomenon in every economically developed country. As modern influences penetrate Eastern Europe new centers are beginning to draw a flood of migrants even from the "immobile" populations of these rural areas. It is within this general frame of reference that specific factors have tended to speed or retard the cityward tide.

#### *Economic Influences: Rural Economic Institutions*

The nature of rural economic organization has commonly been regarded as a determining factor in rural-urban migration. There is a widespread belief among authorities as well as laymen that the existence of large estates and an accompanying rural proletariat is conducive to the depopulation of the countryside. Where the agricultural worker is already a wage-earner he is naturally most attracted by the higher wages of the towns. Where such agrarian organization existed with opportunities for migration as in eastern Germany, in western Poland, in Hungary, and in Scotland there was an exceptionally heavy exodus to the towns and cities. The fact that interstitial areas of small holdings in these regions have often lost quite as heavily as the estate districts does not prove the unimportance of the large holdings in the *Landflucht*. Thus in Hungary the heaviest rural depopulation was occurring in the peripheral districts of small holdings rather than in the central districts with their large estates. Nevertheless, the latter was the determining factor since small-holders customarily sought seasonal employment on the estates and their migration to the towns was as much determined by labor conditions on the estates as by the agrarian conditions of their native districts.

The influence of other aspects of agrarian economic institutions is not so clear. Widespread tenancy, as in England and in Southern Europe may have contributed to the flight from the land. The differing types of inheritance do not appear to have been of decisive importance. Primogeniture tends to create a landless class of younger sons and force them to work for others or to seek non-agricultural occupations. But in areas of divided inheritance land tends to be fractionalized to the point where many peasants have insufficient land for self-support, likewise forcing them to seek other employment. In actual operation the two systems are often not very different.<sup>87</sup> The difficulties of obtaining credit, the lack of capital, the defectiveness of social insurance provisions for rural populations and other agrarian problems have been examined as causes of the rural exodus. Though these are very common disabilities of agriculture in Europe it seems unlikely that differences among rural regions in these regards has been a crucial factor in differentials of rural-urban migration.

<sup>87</sup> Cf. Heberle, *op. cit.*

Perhaps the safest generalization that may be made concerning the relationship of agrarian economic organization and the intensity of rural-urban migration is that the latter tends to be correlated to the degree of intrusion of capitalistic elements and of rationalization in agriculture. Where the farmer is already a business man producing money crops he is already half urbanized in point of view and physical migration to the city is an easy and logical further transition. Though traditional elements are unquestionably important it nevertheless appears true that the same desire for economic advance that makes the farmer receptive to improved agricultural techniques also makes him and his children give attention to the greater economic opportunities in non-agricultural occupations. At the same time mechanization and improved technique often reduce the need for labor on the land. The transition of farming from a way of life to a business enterprise is facilitated by the presence of large estates. Mechanization and rationalization are promoted by the large scale of the enterprise and the owner of the estate is usually more interested than the peasant in direct cash returns. To the extent that labor is hired there is created a rural proletariat whose primary concern is not the land but wages. Once the criterion of reward for work becomes money the attraction of higher wages in other employments becomes readily effective. Once money has been substituted for land as the criterion of wealth the rural-urban differentials in economic opportunity become irresistible. Thus the division of the old Austrian estates in Bohemia among the peasants seems to have done little to stem the cityward migration.<sup>88</sup> Attitudes conducive to the rural-urban movement were already firmly established and were not altered by the satisfaction of land hunger.

#### *Economic Influences: Agrarian Levels of Living*

Internal migration is obviously related to agrarian levels of living as well as to the institutional structure. Areas of manifest agrarian overpopulation, such as Polish Galicia, the Dalmatian mountains in Yugoslavia, and the lower Po Valley, Apulia, Campania, and Sicily in Italy have been areas of dispersion. But the relationship is not a simple one. It is often the best agricultural regions rather than the worst that have succumbed most to the attractions of the cities. Thus in Germany the areas of highest per capita productivity in the North and Center (Figure 52 below)<sup>89</sup> are regions of relatively high rural-urban migration while the South and Southwest, with low per capita yields, have a smaller drain of population to the cities. As noted before, regions of western Poland with relatively high per capita production in agriculture experienced the heaviest movement from the countryside in the interwar period. In Czechoslovakia the rural exodus was keen in Bohemia with its high per capita yields, but insignificant in the poverty-stricken mountain region of Subcarpathian Russia. In Austria the prosperous lowlands have lost more people to the cities than the mountain regions of low per capita production.

These apparent anomalies are not so strange as might appear at first blush. "Push" to leave the land is not so much a function of the fact as of the realization of agrarian poverty. To be effective the push must be felt. As discussed above, the existence of high per capita yields in agriculture is in itself generally an indication of rationalized production for the market and hence an evidence of transition from rural to urban values.

Furthermore the incentive to migrate is not so much determined by general averages as by conditions impinging on the individual. There is obviously a logical gap between average per capita production in agriculture and the actual level of consumption enjoyed by the individual. There is the problem of the distribution of returns. Institutional aspects, such as the wage

<sup>88</sup> International Labour Office, *The Rural Exodus in Czechoslovakia*, *op. cit.*

<sup>89</sup> Cf., International Labour Office, *The Rural Exodus in Germany* (Studies and Reports, Series K, No. 12, 1933).

system of the large estates in eastern Germany or Hungary, may result in a very poor living to the majority of agricultural workers even though average per capita production is high. The conversion of production to consumption may be more or less favorable depending upon the proportion of the crop sold, the market conditions, and habits of consumption. Finally, in peasant areas such as southwestern Germany strictly agricultural income is often supplemented by returns from crafts and by invisible and "psychic" income that cannot be measured by monetary standards. These things tend to reduce the "felt" pressure to leave the land.

*Economic Influences: "Pull" of the City as the Dynamic Factor*

Though certain institutional aspects of agrarian life and absolute levels of agrarian poverty provide "push" to migrate they are probably no more important than the incentives provided by town life which form the other side of the equation. The universal wage differentials favoring the towns have been mentioned. These are supplemented by the fancied educational and recreational advantages of the city. The "anonymity" of city life is often desired as an escape from the social sanctions of the closed village community. Allied to this is the fact that the main channels of social mobility are found in urban life and occupations. These and other attractions provide the "pull" of the city.

In the balance of factors producing rural-urban migration the "pull" of the city is empirically the more dynamic factor. Where sufficiently accurate statistics exist to test the relationship a high correlation exists between industrial activity and rural-urban migration.<sup>40</sup> There appears to be a latent and potential push to leave all rural areas that becomes active when there is a sufficient demand for workers in nearby towns.

The importance of opportunity is illustrated by the influence of the famous Bata shoe factory which was set up in a small town in the midst of a purely agricultural district. Some of the native "Moravian Slovaks" of the neighborhood had found employment previously in Vienna or in Silesian industries but the district was not exceptional in the degree of its rural exodus. In the early 'twenties the Bata factory employed around 2,000 workers and in 1924 the town of Zlin had a population of 4,500. By 1931 the number of workers had sky-rocketed to 20,000 and the town had grown to 30,000. No special measures were taken to recruit ordinary workers other than to provide transportation to the plant from more distant points. When the opportunity arose to work in the Bata plants the countryside readily supplied all the necessary unskilled labor. In a very few years many thousands of country folk left the land to swell the population of the growing town and for many more agriculture ceased to be the chief basis of livelihood.<sup>41</sup>

The importance of opportunity is further exemplified in the effects of depression on migration. If "push" were the dynamic factor in rural-urban migration this movement would have been accentuated in the depression years when the prices of agricultural products were especially low. In actual fact, of course, rural-urban migration was greatly reduced with the rise of unemployment in the cities.

To summarize, in its economic aspects rural-urban migration is the response to differential economic opportunities. Owing to many elements of inertia and to the higher birth rates of agrarian populations agriculture almost universally employs a much larger share of the total working population than is justified by its economic output. Consequently, to the extent that purely economic criteria determine occupation there is a drift to non-agricultural occupations

<sup>40</sup> Cf. Dorothy S. Thomas, *Social and Economic Aspects of Swedish Population Movements*, *op. cit.*, pp. 304-317.

<sup>41</sup> International Labour Office, *The Rural Exodus in Czechoslovakia*, *op. cit.*, pp. 141-144.

that is manifested in migration. The economic differential between agriculture and other employments is a latent force to migration in almost all rural areas.

The degree to which this is effective depends not only on absolute differences in wages and levels of consumption but also on the knowledge and appreciation of these differences. Knowledge is determined by cultural contact with urban areas developed through improved communication, the introduction of a market economy, and popular education. Appreciation is determined by the substitution of urban monetary standards of value. The capitalistic organization of agriculture with wage labor and use of farm machinery itself reflects orientation to urban values and therefore is conducive to migration.

The differentials in economic opportunity naturally fluctuate with economic expansion and the trade cycles in the towns. Rural-urban migration is therefore especially sensitive to the gyrations of the business cycles affecting urban occupations, since rural conditions do not change so violently.

Finally the volume of rural-urban migration as a response to economic objectives is affected by alternatives for achieving the same objectives. Overseas migration has been an important alternative in most European countries and international migration within Europe has served the same purpose for Poland and Italy. On the other hand, it is often possible to change occupation without change of residence. Thus in Polish Silesia, for example, industrialization has been brought to the countryside, thereby affecting great changes in the employments of the people with relatively little urbanization.

Obviously there are other limiting and controlling factors in rural-urban migration than the general economic and cultural factors discussed above. Geographical barriers to centralization, political boundaries, ethnic barriers, demographic trends, and finally national policies have all played a role in the complicated nexus of causation.

#### *Geographical Factors and National Boundaries*

Geography has clearly been an important element in population movements. Sheer physical distance has been of decisive importance in the realization and acceptance of opportunities in the towns. Every town and city has a hinterland in which it dominates trade and from which it largely recruits its population. In general both its economic domination and its attractiveness fade with increasing travel time from the center. The superior opportunities in the cities of Western Europe have not been effective in drawing peasants from Eastern Europe until very recent times because sheer physical distance limited knowledge of the opportunities and greatly increased the financial risks of migration. Similarly, within countries, local centers may be preferred to more distant and more economically favored centers, because of familiarity with opportunities in the smaller nearby towns. There is a lesser gain, but also a lesser risk. Where towns and cities are few, as in Eastern Europe, there are both fewer opportunities, and less familiarity with those that exist; consequently there is less rural-urban migration.

Even in economically developed countries geographical barriers may place an important check on centralization. In Norway and Switzerland, for example, the hinterlands of urban centers are effectively limited by mountain ranges. In Norway the excellence of sea communications and the geographical location have favored the substitution of overseas emigration for internal migration. In all countries internal migration has been facilitated by ease of communication and transport and inhibited by mountains, forests, and other obstructive features of the terrain.

Closely allied to the geographical barriers is the influence of political boundaries. With existing state organization a political boundary is quite as important as a mountain range



in defining the hinterlands of cities and their attractiveness to migrants. The intensity and the direction of internal migration may be greatly altered by the creation of new boundaries. Thus in Estonia and Latvia the growth of cities was undoubtedly restricted by the severance of these countries from Russia in the interwar period. Formerly industrial centers for a large hinterland, the Baltic towns lost much of their market area as the result of political independence, and their attractive power even within the smaller territories was probably reduced by this circumstance. It would seem logical to suppose that large countries are more favorable than small to internal migration since the prospective migrant has a larger range of choice free from political restrictions.

Ethnic differences are less formal than political boundaries but quite as important in their influence on migration. Migration is often strongly selective of certain linguistic groups, and language boundaries commonly bar migration.<sup>42</sup> An ethnic minority may be quite unresponsive to the attractions of a capital largely inhabited by the ethnic majority. Thus the Swedes of the Aland Islands emigrate overseas and to Sweden, not to Finnish towns. In milder form regional differences in dialect and customs tend to deflect migration to regional centers and to permit the continuation of substantial regional differences in economic opportunity. Even religious affiliation plays a role. Thus the conservative influence of the Roman Catholic church in areas of mixed religion has tended to retard urbanization. In Germany, for example, Protestants have been more active in internal migration than Catholics, a factor of no small importance in explaining the comparatively slow urbanization of Catholic South Germany as compared with the Protestant North.

### *Demographic Factors*

Demographic factors may promote or inhibit migration. The relatively slow urbanization of France no doubt partly springs from the absence of pressure on the land in a country of low birth rates. Because the rural population has remained relatively static there has been little pressure for the division of holdings and there has been land enough for all. Conversely, because land was readily obtainable and because families were small the landless class has never been large and a substantial part of the agrarian population is tied to the soil by bonds of ownership and capital investment. Low rural fertility in Sweden has probably likewise retarded the growth of the larger cities.

On the other hand, urbanization in Italy has probably been accelerated by the high rural fertility, especially in the South. In fact, in most of Europe the high reproductivity of the rural population unquestionably gives an impetus to cityward migration.

Since rural-urban migration is a response to both urban attraction and propulsion from agriculture the rates of natural increase in the cities are also relevant. Where natural increase is low or negative, as in Berlin, Vienna, and Geneva, this fact probably produces something of a demographic vacuum attracting migration. Where urban increase is high there is naturally less inducement for in-migration, given the same economic development. As compared with other major European cities in neighboring lands the larger Dutch and Flemish centers have attracted relatively little in-migration, though, owing to high natural increase, they have grown about as rapidly as their rivals. It is reasonable to suppose that with lower natural increase these cities would have attracted more in-migration. These relationships will be further discussed below.

<sup>42</sup> Cf. the selective appeal of Vienna and Budapest in the old Austro-Hungarian Empire noted above, pp. 140-142.

*Influence of National Policies*

National policies can affect rural-urban migration in many unanticipated and some intentional ways. The division of large holdings in Eastern Europe in the interwar period probably slowed rural-urban migration by temporarily satisfying peasant aspirations and by tying more persons to the soil. Efforts at improvements in education and in communication stimulate interest in towns and facilitate contact with them. The result is certainly greater movement to the towns. It is likely that most governmental attempts at improving the conditions of rural life speed rather than check the flow of rural-urban migration. Tariffs promoting the development of domestic industry in the agricultural countries of Europe probably created greater economic opportunities in the towns of the countries and thereby stimulated urban growth. In more urban countries tariffs on agricultural products may lessen rural-urban differentials in economic opportunity and hence hold some of the rural population on the land that might otherwise have left. Any governmental policy affecting the economy of the country may thus swing the balance in favor of or against rural-urban migration.

In general, political centers have been rivals of purely industrial and commercial centers. Owing to the increasing scope of governmental functions political centers are of increasing importance as magnets of population. The pull of such capitals as Berlin, Madrid, and Rome, which are located in relatively barren and otherwise unattractive regions of their respective countries, is to be explained chiefly by political rather than economic factors.

Of equal importance is the influence of the political direction in orienting the economy to economic autarchy and to the achievement of maximum military potential. Nazi attempts to scatter crucial defense industries were certainly a factor in the redistribution of population in Germany between 1933 and 1939. Especially noteworthy in this regard was the development of industry in Northwest Germany at the expense of the Rhineland and the Ruhr, though this also continued a trend evident before the Nazis came to power.

The denouement of such policies is war itself. War migrations incident to total mobilization, refugee flights, and the depopulation of bombed cities uproot many millions and shunt them ruthlessly about the national territory in accordance with the fortunes of battle. How the Second World War has redistributed the population within the national boundaries cannot be fully told until postwar censuses provide the basis for statistical appraisal.

In addition to unintentional effects of governmental policies on internal migration some countries have embarked on specific policies directed at encouraging or discouraging cityward movements. Soviet Russia has deliberately and successfully uprooted many millions of peasants from the soil and induced them to flock into the sprawling cities. Conservatively-minded countries have attempted to do exactly the reverse. They have tried to hold the peasant on the land and to preserve his way of life. These efforts have been much less successful.

The most widespread governmental action against the rural exodus has been land reform and resettlement. The effects of land reform are difficult to prove but it probably serves to retard the flight from the land. The division of large holdings provides greater employment and tends to fix the small holder on the soil. However, the process has obvious limits. In an overpopulated region the equal division of land among all peasants would result in none having a large enough holding for adequate sustenance.

Resettlement is frequently undertaken with the specific purpose of retarding the flight from the land. In this purpose it has generally been ineffective. Thus in Germany, where resettlement was an important aspect of national policy, the total number of persons settled in new holdings was small relative to the number involved in the flight from the land. In the years 1926-1933

inclusive a total of 196,240 persons<sup>43</sup> were settled in new holdings. In the roughly corresponding intercensal period<sup>44</sup> the reported loss of population through migration in communities of under 10,000 inhabitants was 1,102,619.<sup>45</sup> Even assuming that all families settled on the land would otherwise have gone to the towns, and that the new holdings did not displace any population already dependent for employment on the settlement area, the population placed on the land amounted to only a small fraction of that withdrawn in the normal course of rural-urban migration. Of course, both assumptions are false and the net influence of settlement on migration was undoubtedly much less than that suggested by the number of persons settled on the land.

The establishment of a strong peasantry was a cardinal policy in the Nazi program, but resettlement was even less effective in stemming the rural exodus in the Nazi period. The number of new holdings established steadily declined from 1934 to 1940, and the effects on rural-urban migration were insignificant.<sup>46</sup> A program of adding to small holdings also declined in importance from 1933 onward and never was sufficiently widespread to be a very significant factor in German rural life.

Other phases of the Nazi program favoring the peasant life were probably more successful. The establishment of hereditary peasant holdings and similar measures have been interpreted as helping to bind the peasant to the soil. They were probably most effective, however, in raising the social status and class pride of the peasantry and thus indirectly striking at some of the less tangible causes of the flight from the land.

Nevertheless, the combined effects of Nazi back-to-the-land policies were insufficient to stem the cityward tide once employment conditions improved in the cities. Almost a million persons left German rural communities between 1933 and 1939.

In general, land settlement schemes undertaken with a view to reversing the cityward trend have been more spectacular than effective. Thus the draining of the Pontine Marshes and the establishment of new villages in Littoria received great publicity in the interwar period, but the number of persons attracted to these communities was insignificant as compared with the number drawn to nearby Rome. No government has been able to reverse the tide of rural-urban migration.

The foregoing analysis will perhaps serve to illustrate the complexity of factors affecting internal migration. How these many influences balance and check one another in any given area can be ascertained only through intimate acquaintance with their specific operation in the particular district under consideration. Such a survey of Europe is obviously beyond the scope of the present study.

Taking Europe as a whole, internal migration is chiefly a response to differential opportunity. Since the sharpest contrasts in economic opportunity are those of agricultural and non-agricultural occupations the outstanding net result of internal migration is an enormous flow of population to the towns and cities. The tendency to equalize economic opportunities is checked at many points by geographical, political, cultural, and economic barriers. Elements of rigidity have always been sufficient to prevent any complete equalization of wages and levels of living.

<sup>43</sup> *Statistisches Jahrbuch für das Deutsche Reich*, 1936, p. 82.

<sup>44</sup> June 16, 1925-June 16, 1933.

<sup>45</sup> Germany, Statistisches Reichsamt, *Volkzählung: Die Bevölkerung des Deutschen Reichs nach den Ergebnissen der Volkzählung 1933*. Statistik des Deutschen Reichs, Vol. 451, Part 1, pp. 64-65.

<sup>46</sup> The total number of new holdings established was 21,936 in the eight years from 1933 through 1940, as compared with 57,457 from 1919 through 1932. By contrast the intercensal loss of population through migration from 1933 to 1939 amounted to 959,485 in communities of less than 2,000 inhabitants. *Wirtschaft und Statistik* 21(15): 286 and 21(20): 374. August and October, 1941.

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Nevertheless, rural-urban migration is now almost universal in Europe. Up to this point governmental efforts to reverse the stream have been ineffective. By contrast, governmental policies "swimming with the tide" as in Soviet Russia have met with spectacular success in quantitative terms.

### *The Results of Internal Migration*

The effects of rural-urban migration may be viewed from the standpoint of the towns, from that of the countryside, and finally from that of the nation as a whole. The results vary with the nature of migration. Long distance migration normally differs in character from short distance migration. Depression migration brings very different results from that in prosperous times. Some cities, depending on the nature of their chief economic activities, are more attractive to males, others to females. Migration is generally age-selective, and draws some occupations more than others.

In view of the complexity of migratory movements it will be necessary to confine attention to a few of the more outstanding net results recognizing, of course, that there are many exceptions and that the skein of migration is a much more complicated interweaving of move and counter-move than might be judged from rough measures of their final quantitative influence.

### *Towns and Cities*

For many generations there has been a popular idea that the cities are the graveyard of the nation's best human resources. This view received support in a classical treatise by Georg Hansen<sup>47</sup> who came to the conclusion (on the basis of erroneous reasoning from statistical facts) that the city populations of Germany were completely renewed from the outside every two generations. The hypothesis derives more sophisticated statistical basis from the commonly observed low urban fertility and from the substantial rural-urban differentials in fertility existing in most countries. It is assumed that the cities could exist only with a large inward balance of migration drawn from the surpluses of the healthier rural populations.

It is ironical that Hansen developed his thesis at a time when it was least true. In earlier times the poor sanitation of the cities probably resulted in higher urban than rural death rates. But public health services of the cities have made such rapid progress that there is probably no longer any great health liability in city life. Medical facilities are concentrated in the cities and the generally higher level of education in the towns favors urban populations. As measured by death rates city people are now about as healthy as their country cousins. As the result of advances in the control of urban mortality and the persistence of high fertility the natural increase of cities was high in Hansen's time. Subsequent fertility declines, only partially compensated for by further reductions in deaths, have resulted in renewed failure of the cities to reproduce their populations.<sup>48</sup> Few large European cities were replacing themselves through reproduction in the interwar period, though some continued to have a balance of natural increase deriving from favorable age distributions.<sup>49</sup>

The observed growth of the larger cities was chiefly owing directly to in-migration. At the same time, rural-urban migration characteristically brings a balance of young adults to the towns, who have their children as a part of the urban population, thus increasing the number of births. Because of their youth they do not contribute many deaths.

<sup>47</sup> Georg Hansen, *Die Drei Bevölkerungsstufen, Ein Versuch die Ursachen für das Blühen und Altern der Völker nachzuweisen* (München: 1889).

<sup>48</sup> Cf. above, Chapter IV.

<sup>49</sup> It may be noted that in Figure 38 below (Chapter VIII), most large cities and districts dominated by large cities are either areas of absorption in which in-migration exceeds natural increase, or areas of "repopulation" through migration, in which in-migration was offsetting natural decrease.

## INTERNAL MIGRATION

The effect of internal migration on the age-sex distribution of the urban population is suggested by the representative age pyramids of Figures 33-35. Comparison of age pyramids is not in any sense a rigorous measure of age and sex differentials in migration owing to other factors affecting these characteristics. But knowing what these other factors are it is possible to reach general conclusions as to the effects of rural-urban migration.

The first of these panels illustrates the acute rural-urban contrasts that may exist in a country that was undergoing rapid urbanization in the interwar period. The second shows the relatively

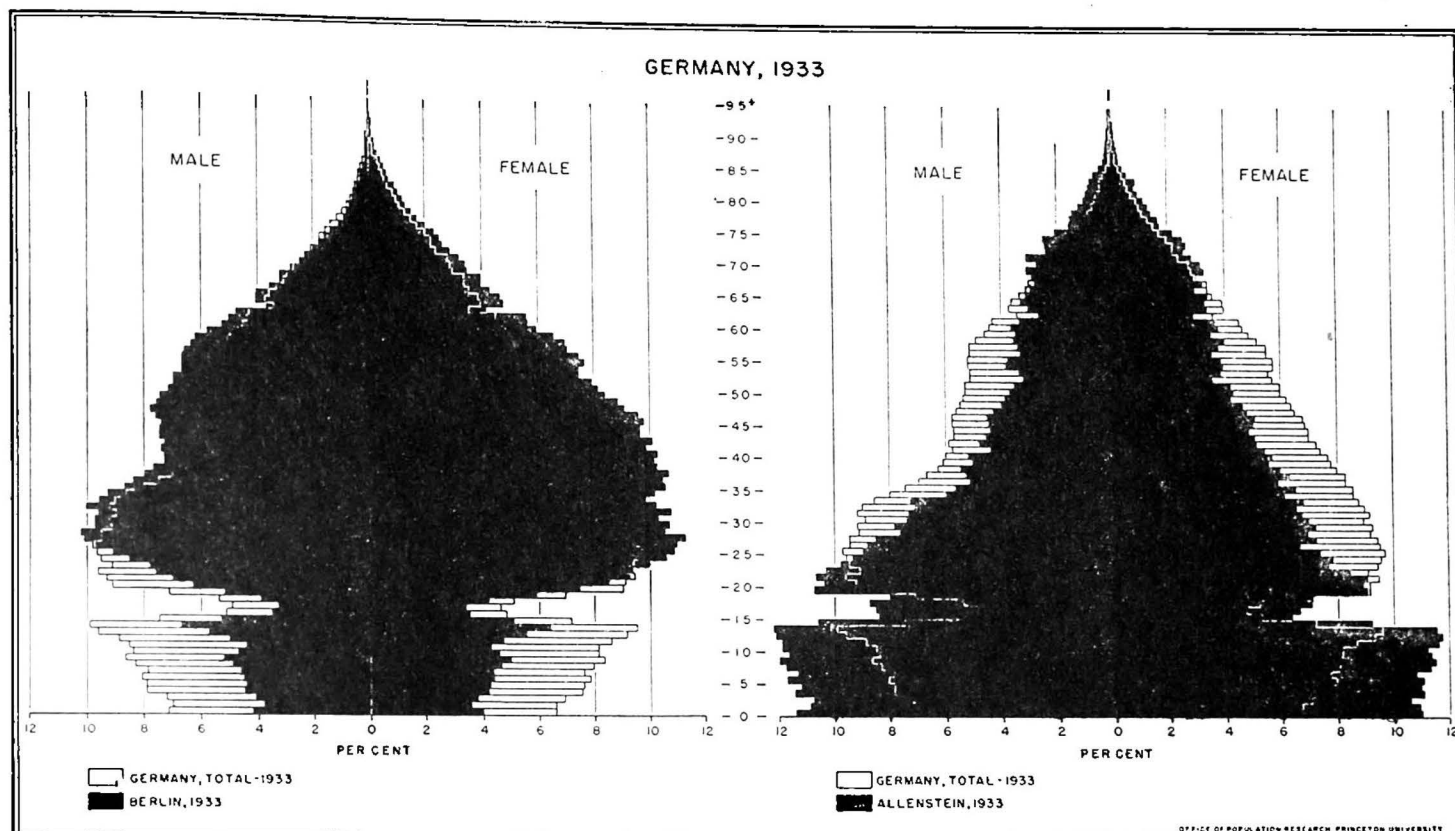


FIGURE 33. Contrasting age pyramids of urban and rural areas, Germany, 1933.

small differences in a country already almost wholly urbanized. The third pictures rural-urban variation in a peasant country where migration of any kind is still rather small.

The age pyramids of Berlin and the rural Allenstein district of East Prussia were the extremes of rural and urban types in interwar Germany. Both show the effects of World War I in deficits of males at the military ages and in deficits of births in the war years. Otherwise the population structures are very dissimilar. The small base of the pyramid in Berlin is partly a function of very low fertility, partly a function of the great migratory currents that have swelled the adult population. In Allenstein the broad base reflects high fertility, and the adult population shows the effects of heavy depletion through emigration. The Berlin population in the adult ages is heavily weighted with females. Like most German and Western European cities Berlin draws a larger net-in-migration balance of females than of males.<sup>50</sup> In Berlin the sex ratio was 856 males per 1,000 females, indicating an excess of women of about 18 per cent. Of the 52 German cities of 100,000 population and over in 1933 only two had more males than females. These two cities (Gelsenkirchen and Oberhausen) were industrial cities of the Ruhr,

<sup>50</sup> This does not argue that females are necessarily more mobile than males. The opposite is probably the case. The total volume of male migration is probably greater, but in balance of population exchange more females remain in the cities than males.

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which employed many men and few women. In contrast males and females were almost exactly balanced in the total rural population and in Allenstein there were more males than females. Rural-urban migration is selective of young people and especially of females.

It will be noted that rural Allenstein had a higher proportion of old people than the national average, Berlin a lower proportion. Rural-urban migration contributes to this phenomenon by withdrawing young cohorts from farm to city. There is also some evidence that in the exchange of population cities lose old people, though of course this loss is usually numerically small as compared with the inward flow of young people.

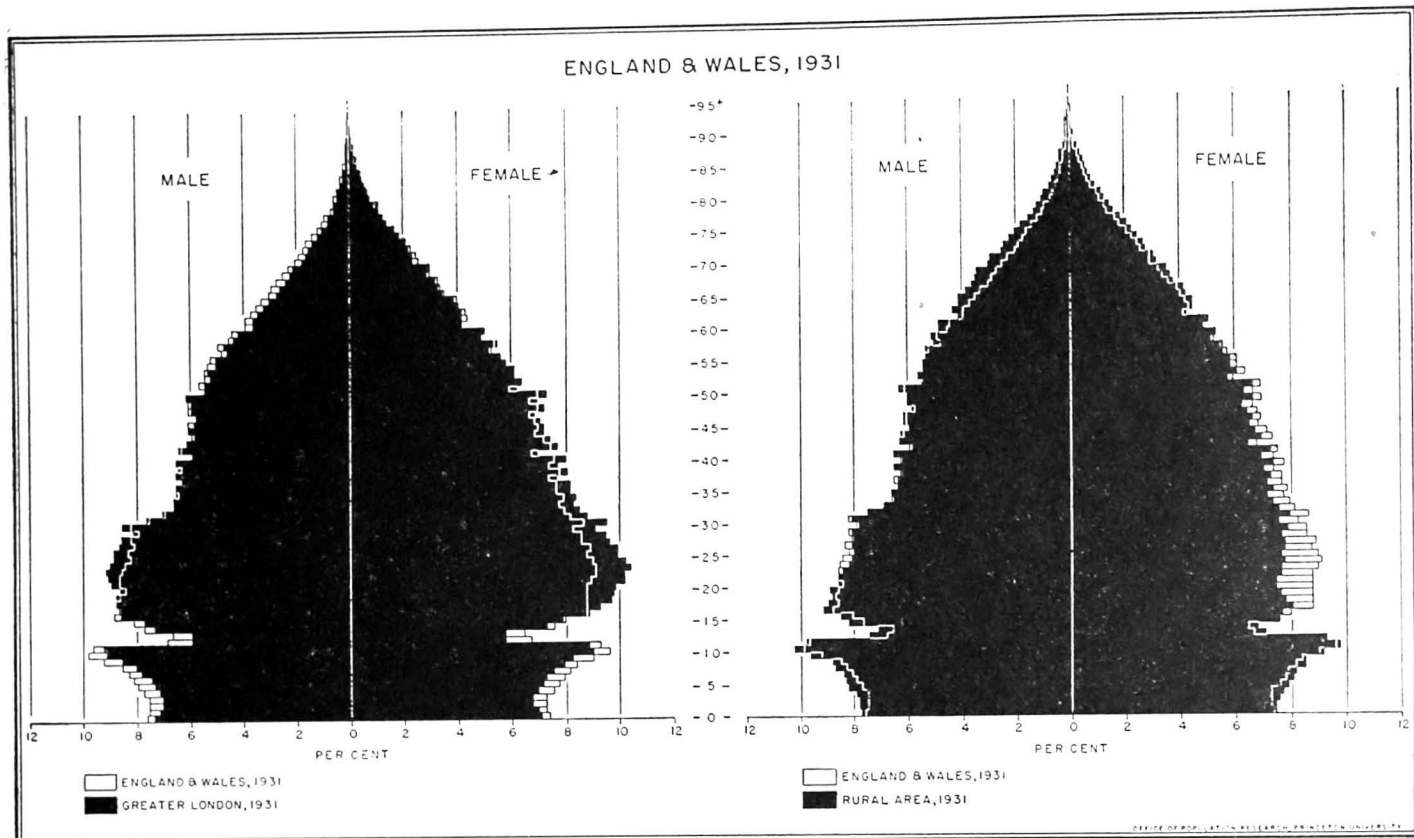


FIGURE 34. Contrasting age pyramids of urban and rural areas, England and Wales, 1931.

The second pyramids, those contrasting London and the total rural population of England and Wales, illustrate the convergence of urban and rural populations in an almost completely urbanized country. In England much of the census-defined "rural" population is not rural in any sociological sense, and even the farming population is obviously much influenced by the overwhelmingly urban character of the country.

The third panel compares the population structure of Belgrade with the predominantly rural country of which it is the capital. The city has grown very rapidly, and it is apparent from the age pyramid that there must have been a large in-migration of young adults in recent years. In this feature the movement to Belgrade resembles those to older destinations of mass rural-urban migration in Western and Central Europe. The distinctive feature of migration to Belgrade (and to other Balkan cities) is the high proportion of males in this movement. At age 20-24 the sex ratio of males per 1,000 females was 1,633, i.e., a 60 per cent excess of males.

A reasonable explanation of this different effect of migration in the Balkans is the relative adventurousness required for migration in this region and the nature of employment in the towns. Unsettled conditions and the force of community sentiment tend to keep women at home. Men more readily than women break away from community bonds. At the same time,

## INTERNAL MIGRATION

opportunities for employment in the towns of the Balkans are chiefly in industry and administration, fields that in these countries do not utilize a large female labor force. With the development of the economy and the growth of cities, female migration in the Balkans may be expected to assume the place it has in Western Europe.

Enough has been said regarding the demographic factors to suggest some parallel generalizations regarding the more direct economic effects. As in the case of overseas and international migration, the rural-urban movement represents a very substantial contribution of wealth from

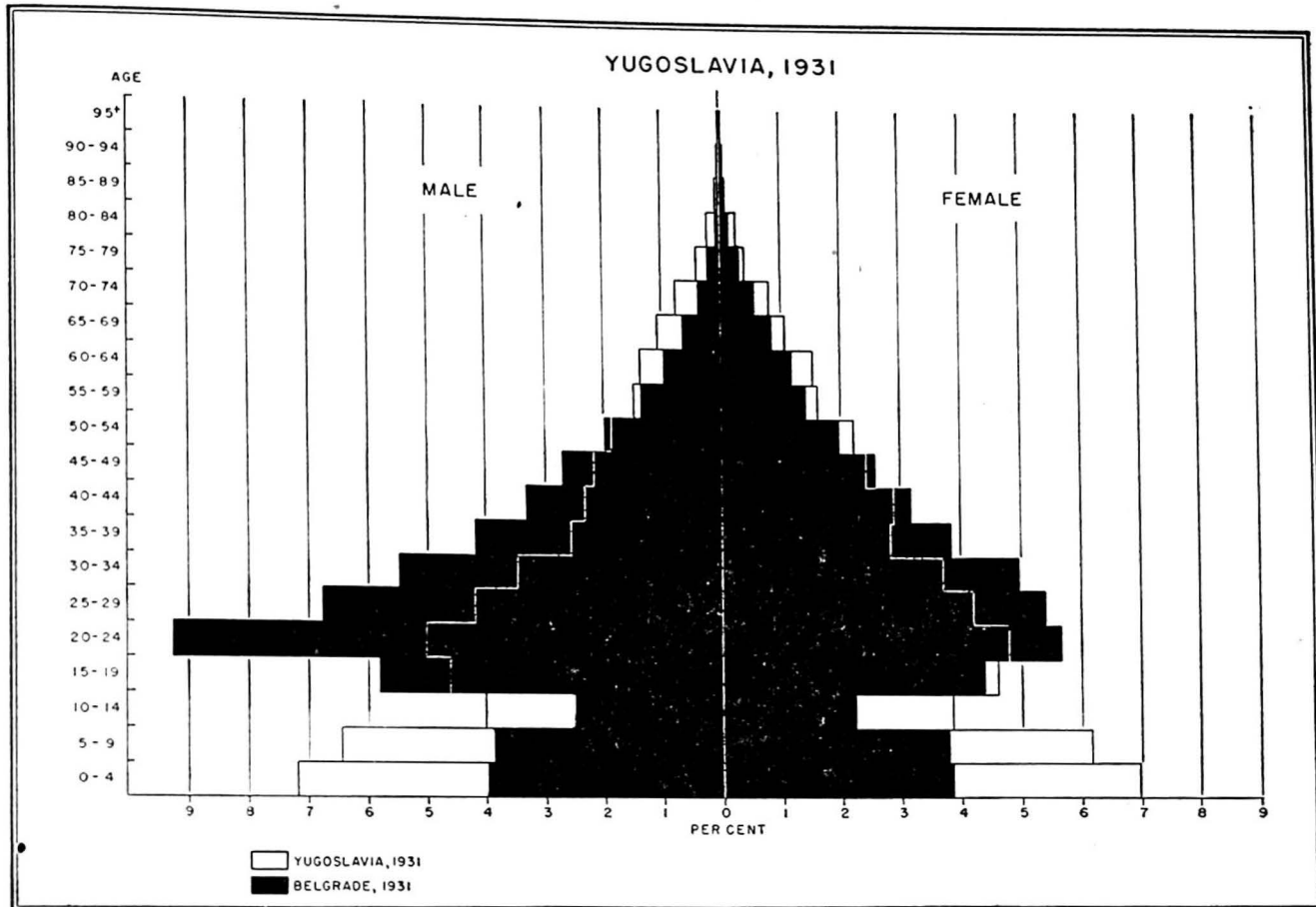


FIGURE 35. Contrasting age pyramids of urban and rural areas, Yugoslavia, 1931.

farm to city. Migration provides the towns with a young, energetic labor force. It has furnished free to the cities the human capital upon which the great achievements of modern urban civilization have been based.

The specific social effects on the cities are not always clear. Internal migration has been considered to have contributed to congested slums, juvenile delinquency, crime, and bad health conditions in industrial centers. There is undoubtedly some lag in adjustment to the new environment, with consequent casualties in the form of nervous disorders and social maladjustment. However, these effects are probably reduced by the fact that in-migrants into the more extreme urban environments of the large cities generally do not come directly from the open countryside, but from smaller cities and towns with a somewhat intermediate environment. There is no adequate proof that rural migrants contribute more to the social ills of town and city than do the natives of cities. Personal and social disorganization in cities may be accentuated by in-migration but it certainly is not the fundamental cause.

### *The Countryside*

The consequences of rural-urban migration to the countryside are naturally complementary to those of the city. Through rural-urban migration the rural population loses part of its

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natural increase and grows less rapidly than if the movement did not exist. In some cases the movement is so intense that there is absolute depopulation. Through the differential emigration of young adults, especially young women, and the return of old folks from the towns, rural populations in Western and Central Europe are more masculine in composition than the urban populations and have higher proportions of the very young and the very old.

Migration is an important capital loss to the countryside. Considering the defectiveness of knowledge concerning the details of this movement of human capital it would be idle to place an exact valuation on the loss to the countryside and gain to the city. An American investigator<sup>51</sup> has asserted that during the 'twenties as much as half of the urban labor force was recruited through migration, and that in the United States the average annual capitalized value of rural-urban migration was equal to the value of the wheat crop plus half that of the cotton crop. Attention is also called to the inheritance of farms by non-farm migrants and to the loss of rural capital suffered thereby.

Such estimates are likely to lead to the dangerous conclusion that the assumed gains to urban areas represent equivalent losses to the rural districts, and that rural-urban migration is thereby an acute source of impoverishment. This is true to the extent that rural areas have had to bear the burden of clothing, feeding, and educating those leaving the farms. These things are usually provided at less expense than in the towns, but undeniably the cost of these items represents a loss to rural districts. On the other hand, an overpopulated rural district may gain by the out-migration of excess labor force that could only be used inefficiently on the land in any case. The value of the worker is greater in the city; that is why he moved. His removal from the rural district may well benefit those who remain, by raising wages or by relinquishing a potential claim on the land.

Probably more serious than the direct economic loss of labor force is the draining off of the natural leaders and innovators from the rural community. An extensive intellectual controversy has raged over the alleged dysgenic effects of rural-urban migration without conclusive results. But it is not necessary to argue the question on biological grounds to demonstrate its unhappy effects on the countryside. There is general agreement based on numerous studies that rural-urban migration is selective of the better educated of the rural population. The countryside is thereby deprived of leadership and knowledge. It is true that migration may also draw out the poorest elements without fixed ties (i.e., the landless) but in any event rural areas are left with mediocrity.

### *The Nation as a Whole*

The effects of rural-urban migration on the country as a whole are naturally a synthesis of their effects on the component areas. The country becomes more urban and less rural as the result of the cityward drift; in fact the movement is itself the most important factor in the rate of urbanization. Owing to the inefficient use of labor in agriculture, migration leads to a better distribution of income and economic opportunity as a whole. Not only the migrant but the country as a whole is more wealthy as the result of internal migration undertaken for rational economic motives.

In demographic terms rural-urban migration clearly means a reduction of fertility and of the rate of natural growth. Rural migrants to the city quickly acquire the small family patterns of the city. Consequently the shift of population to urban areas implies a reduction in total fertility. At the same time the continued contacts of migrants with their native communities

<sup>51</sup> O. E. Baker, "Rural-Urban Migration and the National Welfare," *Annals of the Association of American Geographers* 23:59-126. 1933.



speeds the dissemination of small family patterns in rural communities. Rural-urban migration unquestionably accelerated the demographic transition.

Whether a nation is culturally richer or poorer as the result of the "flight from the land" has been the subject of endless debate. Modern technological civilization has had its greatest flowering in the cities. On the other hand, the mobile society characterizing modern urban life has led to the disintegration of traditional values still cherished in the rural environment. It is commonly asserted that economic and political instability are the inevitable consequence of excessive urbanization.

This is obviously not the place to argue the merits of the contrasting ways of the modern cliff dweller in his machine-made environment and the self-sufficient peasant "seeking the food he eats and pleased with what he gets." The peasant's life may be regarded as idyllic or animal depending on the emotional bias of the observer. City life may be considered shallow and degenerative or stimulating and creative depending on one's personal prejudices. Whatever the respective merits of the contrasting ways of life, it is obvious that city life has found greater and greater favor in Europe, and that the standard pattern of European life is being transformed. The chief physical means by which this transformation has occurred is internal migration.

#### *The Future of Internal Migration*

It is impossible to foresee with any exactitude what the volume and the form of internal migration in the future is likely to be. Nevertheless, certain general conclusions may be drawn from a consideration of past experience and trends. Two problems concern us here: (1) the prospective volume of internal migration and (2) changes in the type and the principal destinations of migration.

In the preceding chapters it has been suggested that the prospects for large-scale international migration of voluntary origin are unfavorable. Less international migration than in the past seems a likely possibility. It does not follow that prospects for internal migration are equally unfavorable. Quite the contrary: there is every reason to suppose that the volume and intensity of internal migration will increase. The declining importance of geographical and social barriers to internal migration, combined with the greater importance of international boundaries as a restraint to free migration, imply the likelihood of intensified exchange of population within the national territory.

Geographical distance is a factor of declining importance in human society. Mechanical inventions have systematically reduced travel time and costs per kilometer. Through modern miracles of transport the world and every country within it has shrunk in size. Similarly, mountain and water barriers have become less and less of a bar to social intercourse. The means of internal migration are faster and more comfortable than at any previous period in human history. There is every reason to suppose that this progress will continue and that internal migration will be facilitated thereby.

Social inhibitions against free movement are also fading. In Eastern Europe the closed village community is being pried open by contact with the modern world. In every country in Europe there is an almost irresistible trend to greater geographical mobility as the bonds of tradition that held the individual to the local community are weakened by the substitution of the new values of a more mobile society. Regional differences in customs and dialect are dissolving under the influence of the public school, the cinema, the radio, and the daily newspaper. The cultural barriers to migration within an area of common language are being reduced by the trend to national uniformity.

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Possible future changes in the destinations and types of migration are suggested by interwar developments. It is obvious that movement between cities will become of greater relative importance as the rural sources of migration are exhausted. Thus in England and Wales, where only seven per cent of the population is normally engaged in agriculture, rural-urban migration is no longer the dominant form of internal migration. As other countries urbanize further and further, internal migration will inevitably become an inter-urban phenomenon.

As between cities, commercial and service centers were generally favored over purely industrial towns in the interwar period. It seems logical that this trend should continue with the increasing independence of industry from the immediate source of raw materials and the growing importance of service functions in the economy. The mushrooming of governmental functions favors political capitals as destinations of migratory movements. Direct governmental action may be expected to have greater direct and indirect influence on the location of industry, the flow of commerce, and hence the direction of internal migration.

Non-economic factors promise to be more important determinants of migratory currents in the future than in the past. As standards of living rise, larger and larger numbers of people are in a position to concern themselves with the esthetic features of the environment. Larger and larger sections of the population can choose their place of residence with regard to the attractiveness of the physical surroundings as well as to strictly monetary rewards. A pleasant countryside and a salubrious climate promise to be among the most important natural resources of the future. The widespread suburban movements flowing out from the centers of the metropolises are harbingers of even greater movements in the postwar world. The fear of bombing in another war may well encourage governmental promotion of this widespread tendency. This movement may be greatly accentuated by fear of the atomic bomb, though the ultimate potentialities of this weapon and the feasibility of dispersion as a defence against it are not yet clear.

A logical corollary of the suburban movement is the residential development of areas enjoying a favorable climate. The beginnings of such influences are evident in the migratory gains of the Riviera and other recreational areas. With greater geographical mobility persons without work responsibilities may be expected to seek out regions within the country favored by a mild climate. The populations of such regions as southwestern England and the Riviera will probably be increased through the migration of old people, convalescents, and of persons catering to the tourist trade. Even the utilitarian Communists have developed the Crimea as a vacation spot for deserving Stakhanovites.

Climate, however, will not be a dominant factor in the immediate postwar years. In the future, as in the past, internal migration will be one of the chief means of equalizing economic opportunity. With fewer geographical and social barriers it can perform this function more effectively than in the past.

## CHAPTER VIII

### THE BALANCE OF MIGRATION AND MIGRATION AS A FACTOR IN POPULATION GROWTH

THE preceding chapters have dealt with the three major types of migratory movements in Europe. It remains to show the combined effect of these different aspects of migration and to relate the net migration balance to population changes.

In the existing state of European statistics it is not possible to obtain the net balance of migration directly by summing the component internal and international movements. As noted above, net migration is normally ascertainable only by comparing population growth and natural increase for intercensal periods.<sup>1</sup> The results of such computations for intercensal periods approximating each of the two decades of the interwar period appear in Figures 36 and 37, the data mapped being given in Appendix III, Table 8.

The relative importance of international and internal migration in the over-all balance naturally varies with the size of the district under consideration. Much internal migration covers very short distances (e.g., between neighboring communes) and consequently does not affect the balance of large provinces or regions. Thus international migration is more important than internal migration in such regions as Galicia, Slovakia, and Dalmatia considered as units. But where the commune or small district is taken as a unit, internal migration is almost everywhere more important quantitatively than movements across international frontiers. In general, internal migration is greater than either overseas migration or international migration within Europe.<sup>2</sup>

Most of Europe was losing population through migration in the interwar years. Europe as a whole was sending population to other continents in the 'twenties, and to a small extent even in the 'thirties. The losses from overseas migration were sufficiently widely dispersed to affect the migration balances of a large part of the continent. In some places, such as Norway, Slovakia, and southern Italy, it was sufficiently important to be the decisive factor in migration balance. But generally migration within Europe was the dominant factor. Practically every rural district sent a migration balance to the neighboring towns, and the centripetal forces were so great that the larger cities generally absorbed population from whole regions as well as from the immediate rural environs. As in the case of internal migration of which it is so largely composed, the migration balances reflect the attraction of migrants to a relatively few centers from widely dispersed origins.

Every European country for which there are adequate data has its areas of heavy out-migration, which can be identified by examination of the maps of Figures 36 and 37. In most countries there are areas of traditional and persistent out-migration, differing widely in their

<sup>1</sup> Cf. p. 127. As in almost all migration materials there are serious methodological limitations that should be considered in the evaluation of the data:

a. The migration balance is a residual, and hence is affected by defects in the census and vital statistics from which it is derived. Since migration is usually the lesser factor in population change these errors may be particularly serious as they affect the estimated migration balance. Such errors are greatest in Eastern and Southern Europe.

b. By definition the method is limited to intercensal periods. These do not always coincide in the several countries, nor are the periods covered necessarily the most significant ones from the viewpoint of migration. Short term fluctuations cannot be determined from these materials. Consequently, the effects of business cycles, for example, are difficult to interpret from these data alone.

c. Rate of migration is partly a function of area included, since short distance migration is generally greater than long distance migration. Other things being equal, a large area will have a lower rate of migration than a small area, and a district with long boundaries relative to area will have a higher rate of migration than a compact district with short frontiers.

<sup>2</sup> Cf. Chapter VII, p. 126.

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agricultural systems, agrarian institutions, and levels of living, but having in common poor economic opportunities relatively to those obtainable through migration.

In-migration was concentrated in the cities. The larger areas showing in-migration balances usually do so because of the dominant influence of the gains of their chief cities, and not because of widely-diffused gains throughout the district. There are two important exceptions to this rule: (1) where international migration has gone to rural as well as to urban areas (2) where the return and settlement of refugees has meant an influx into agrarian regions. In France foreign immigrants have gone to rural as well as urban areas; half the departments showed an inward balance of population movement during the 'twenties. To a certain extent there was a similar movement to small industrial (especially mining) towns in the Low Countries. In Eastern Europe refugee movements produced widely diffused inward balances in areas that otherwise would hardly have attracted large-scale immigration. The outstanding movements of this nature after the last war flowed into eastern Poland and into Macedonia and Thrace in Greece. It is questionable whether these regions drew any substantial further migration after the flood of refugees subsided, though there is no accurate statistical basis for differentiation.

The differences between the migratory movements of the 'twenties and the 'thirties are rather less than might be anticipated from the chaotic condition of Europe in the later decade. The outstanding change in migratory balances was the substitution of Germany for France as the chief country of immigration. This change is reflected in the larger area of Germany showing migratory gains and the larger number of French departments displaying migratory losses.

The effects of the depression were variable. In some countries, such as Denmark, Finland, Hungary, and Italy, both the pattern and intensity of migration balances remained substantially the same, though it may be noted that in Italy there was some substitution of internal for overseas destinations.

In a number of countries the intensity of outward movement in traditional areas of out-migration was reduced. This seems to have been generally true in Sweden, though the Stockholm area grew almost as rapidly as before. The cessation of overseas migration, as well as conditions at home, apparently brought about lower outward balances. Similar influences are observable in such traditional out-migration areas as the northern provinces and Zeeland in the Netherlands, Luxembourg province in Belgium, and Brittany in France.

Predominantly industrial districts of Western Europe drew inward balances during the 'twenties, but seem to have lost much of these gains in the 'thirties. During the 'thirties there were heavy migratory losses in those industrial departments of the French North and Northeast that gained large balances in the previous decade. In the Duchy of Luxemburg, in the mining areas of Limburg, and in the Rhenish-Westphalian belt of heavy industry, the depression seems to have resulted in a backwash movement less noticeable in the major urban and commercial centers.

In Germany, Austria, and Czechoslovakia changes in the patterns of migration balance after 1933 were obviously related to political developments. The extremely high negative balances in Austria and the Sudetenland arose chiefly from the flow of workers to German armament industries. The apparent high inward balance in Bohemia-Moravia was probably the product of refugee movements of Jews and Czechs from Austria and the Sudetenland.

### *Migration and Population Change*

Population change is the balance of the four dynamic elements affecting numbers: births, deaths, in-migration, and out-migration. More simply stated, it is the upshot balance of natural

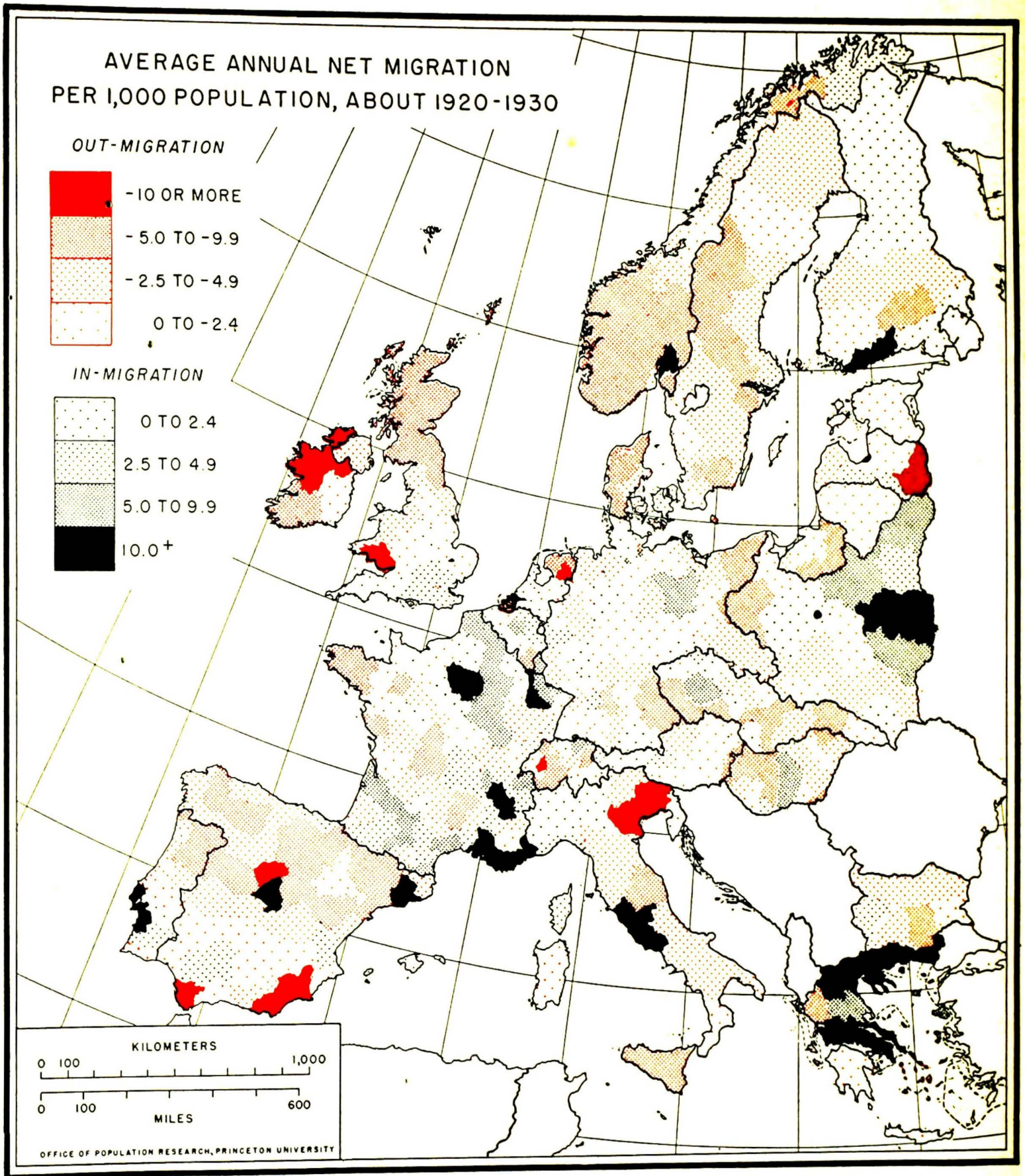


FIGURE 36. Average annual rates of migration in Europe, by minor divisions, as determined by differencing population growth and natural increase for intercensal periods approximating 1920-1930.

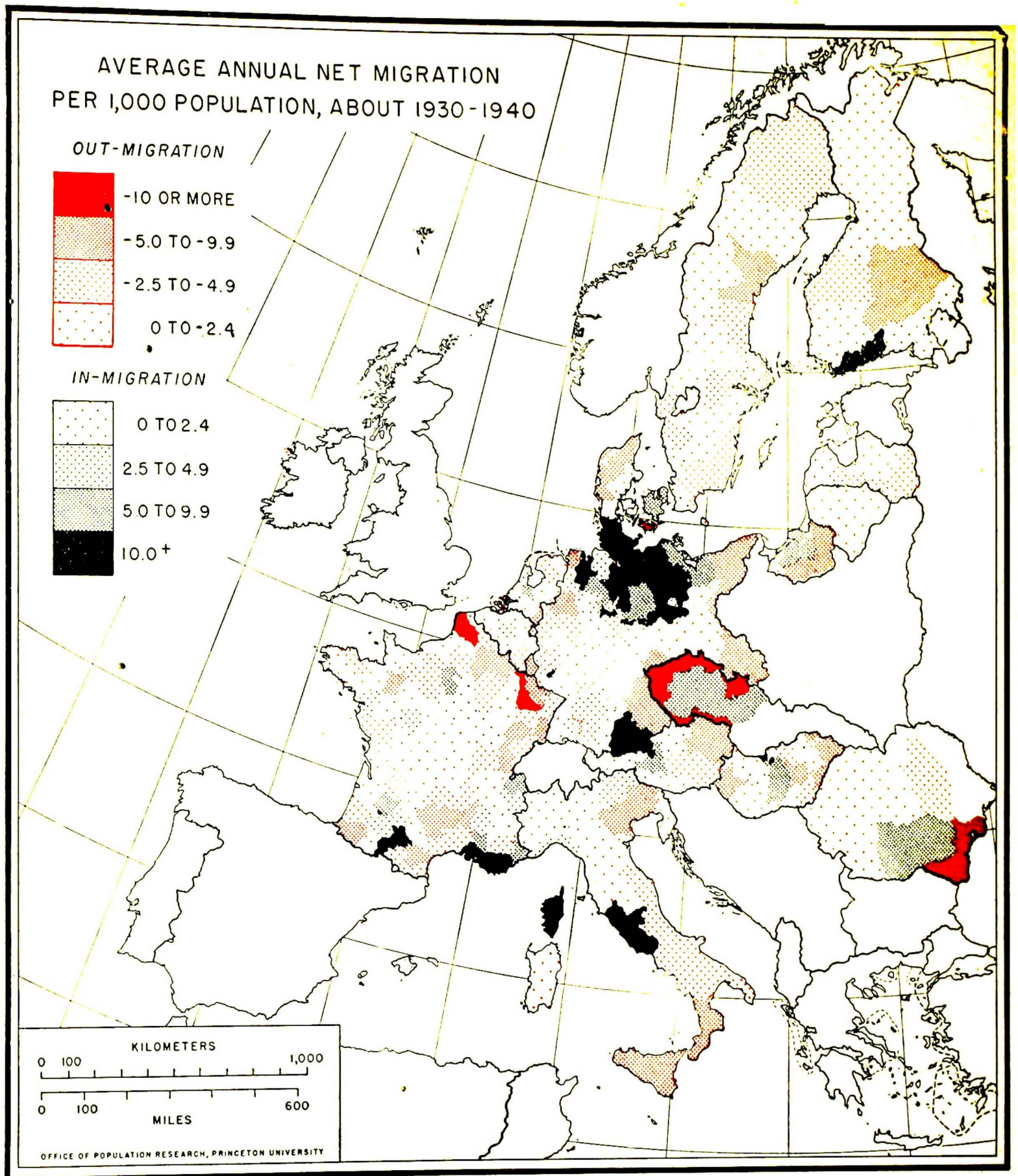


FIGURE 37. Average annual rates of migration in Europe, by minor divisions, as determined by differencing population growth and natural increase for intercensal periods approximating 1930-1940.

increase (or decrease) and migration. In Figure 38 the areas of Europe for which interwar migration balances are available are classified according to the direction and relative importance of migration as a factor in population change. The basic data for this classification are given in Appendix III, Table 8.

Three major types of areas are distinguished, together with certain significant sub-classifications. These are:

- A. Areas of *dispersion*
  - 1. *Depopulation* through out-migration
  - 2. Out-migration *more* than half the natural increase
  - 3. Out-migration *less* than half the natural increase
- B. Areas of *balance* (i.e., average annual migration balance of less than 2.5 per thousand inhabitants)
  - 1. Small *out*-migration balance
  - 2. Small *in*-migration balance
- C. Areas of *absorption*
  - 1. In-migration *less* than the natural increase
  - 2. In-migration *more* than the natural increase
  - 3. "*Repopulation*" through migration (in-migration combined with natural decrease)

The categories progress from areas in which out-migration has been a decisive factor, through those of little migration balance, to those in which in-migration has been the determining element in population change. Aside from the middle category, that of migration balance, all relate to areas having significant net migration, arbitrarily defined as an average annual rate of migration, plus or minus, exceeding 2.5 per thousand inhabitants.<sup>3</sup>

#### *Areas of Dispersion: Depopulation through Out-migration*

The first category (A1) includes those areas in which out-migration was a decisive factor in population decline, either by cancelling natural increase or by re-enforcing natural decrease. In most of these areas depopulation arose from a migratory outflow exceeding natural increase. In a few, all in France, there was both an excess of deaths over births and significant out-migration. In only one of these areas, the French department of Ariège, was natural decrease more important than out-migration in determining population loss.<sup>4</sup>

In France 80 of the 90 departments have historically had larger populations than at present. Depopulation is a common phenomenon. Those departments in the South and West that did not attract foreign immigration in the interwar years were generally suffering population loss through migration, and in the South and West-Center, through natural decrease. Through the combined influence of these phenomena a number of these departments have smaller populations than they had a century ago.

Despite substantial natural increase, depopulation through migration was the rule in Ireland and Scotland, except as regards the larger cities. In the North of England and in South Wales there were heavy population deficits arising from out-migration, and central London was being deserted for the suburbs. In Norway the Agder region was being depopulated through overseas

<sup>3</sup> It will be noted that both the rate of migration and its relation to natural increase vary with the time period under consideration. It was impossible to obtain data for all European countries over the same years. Where possible the periods covered include both relatively normal and depression years, but not periods in which political influences were dominant (e.g., 1933-1939 in Greater Germany). As a result international comparisons should not be made without reference to the years covered. (See Appendix III, Table 8.)

<sup>4</sup> In three other French departments (Alpes Basses, Cher, and Nièvre) natural decrease exceeded net out-migration, but the balance of out-migration was small (i.e., below 2.5 per thousand).

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migration, while in large tracts of Sweden natural increase was insufficient to offset the outward flow of migration.

Depopulation through migration in the interwar period was almost entirely confined to Western European regions of low natural increase. Where natural increase is high, as in Eastern Europe, very large out-migration balances are required to bring about actual population loss.

The only country of high natural increase to experience extensive depopulation through migration was Spain. In the 'twenties the hinterland of Barcelona was being depopulated through the attractions of that growing center. In some parts of Galicia very high natural increase was being dissipated in out-migration and in the South the commercial decay of Cadiz and Cartagena brought about depopulation in the provinces dominated by these cities.

In the remainder of Europe there were few large districts experiencing sufficient emigration to wipe out natural increase: among these central Finland, the St. Gallen-Appenzell cantons of Switzerland, and the Bohemian forest borderlands of Czechoslovakia may be noted.<sup>5</sup>

### *Areas of Dispersion without Population Decline*

If there is a typical migration picture of Europe it is that of an area losing substantial numbers through out-migration but with sufficient natural increase to maintain population growth. This was the position of the continent as a whole in the interwar period. In order to make a rough distinction as regards the relative importance of migration to growth, this category is subdivided into two, one including areas in which out-migration was draining off more than half the natural increase (A<sub>2</sub>), the other those in which it was removing less than half the natural growth (A<sub>3</sub>).

In general, emigration regions of Western and Central Europe not in Category A<sub>1</sub> are among those in which out-migration exceeds half of the natural growth. Peripheral areas, in which modern influences have made important inroads without completely changing old patterns, are prominent in this group. Eastern Germany and western Poland, the backward region of Lower Bavaria and the Bohemian forest, the Transdanubian region of Hungary, the lower valley of the Po, and much of northern Spain appear in this classification. Migration was active owing to the accessibility of more developed regions, but the birth rate remained sufficient to maintain population growth.

In Eastern Europe and southern Italy the out-migration balances generally removed less than half the natural surplus. Small balances of out-migration and high natural increase both contributed to this situation, yet even where there was considerable emigration, as in Polish Galicia and southern Italy, the excess of births over deaths was less than half cancelled by these movements.<sup>6</sup> It is in the poorest regions of Europe that the population is accumulating most rapidly through the excess of births over deaths. Though there was general out-migration from these regions, it was sufficient only to remove the lesser part of the surplus.

### *Areas of Migration Balance*

Throughout Europe there are areas in which the migration balance is small. These are not necessarily regions of little migration, but those in which inward and outward movements largely cancel out. Northern Italy, for example, was a region of great migratory activity in the interwar period, but one in which heavy emigration to France was counterbalanced by in-

<sup>5</sup> Had the data for Belgium covered only the years 1920-1930 the province of Luxembourg would have been included in this category. Owing to the industrial depression out-migration was much reduced in the 'thirties. In addition there were, of course, many small districts throughout Europe in which out-migration more than balanced natural growth.

<sup>6</sup> Though, as noted above on page 142, the method utilized may understate the extent of out-migration in these regions.



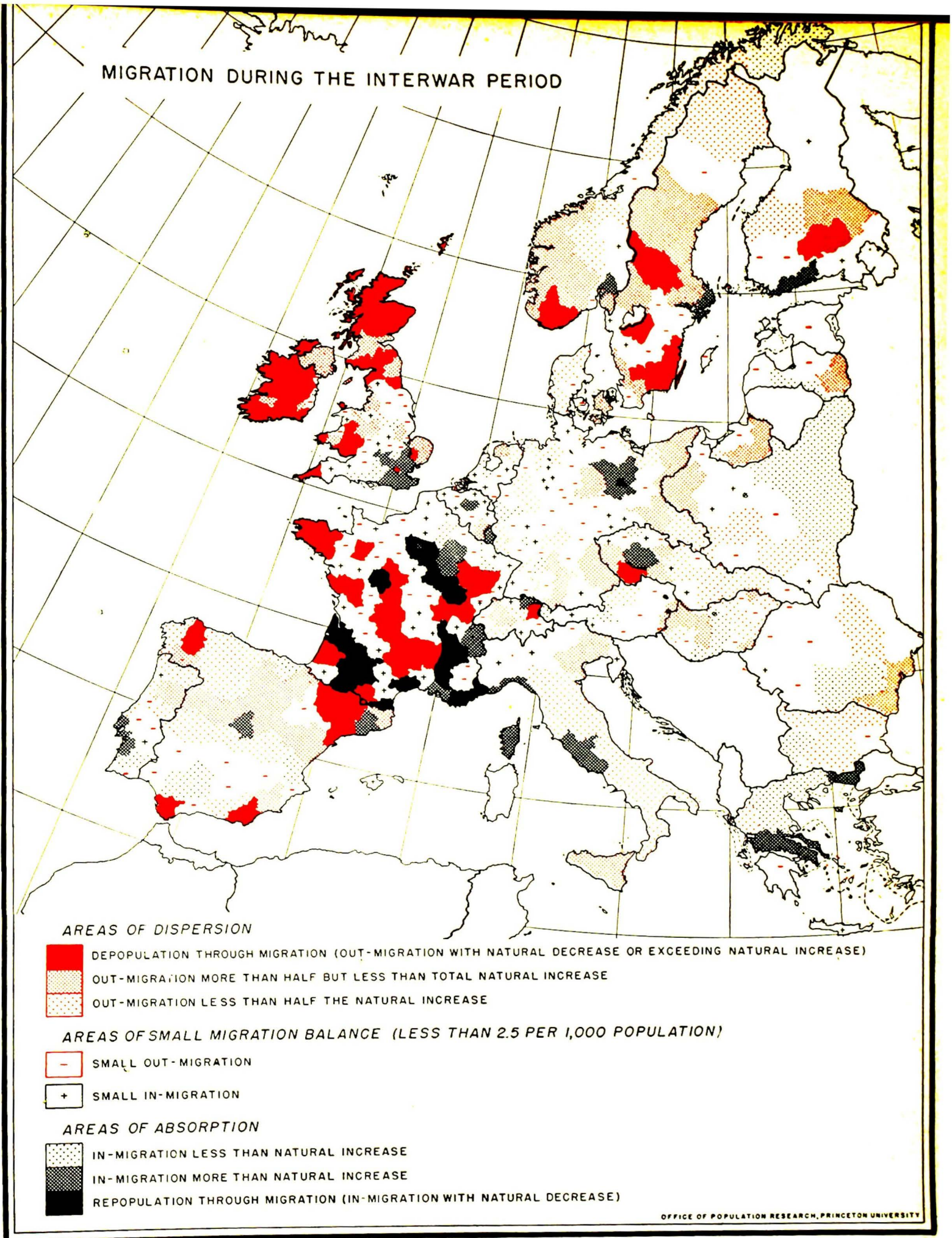


FIGURE 38. Migration as an element in population change in Europe, by minor divisions, during the interwar period. (Obtained by relating average annual rates of migration shown in Figures 36 and 37 with rates of natural increase in the corresponding period.)

migration from the remainder of Italy. The net upshot was a small positive balance indicative only of the narrow balance between two large movements. In other cases the small margin of net migration measures the difference between large migratory gains in the central cities of a district and losses in the adjoining rural areas mapped with them. Thus in Poland strong out-balances would have been recorded in the provinces of Pomorze, Lodz, and Warsaw were it not for the attraction of urban centers in these divisions (i.e., respectively, Gdynia, Lodz, and the suburbs of Warsaw). Similarly, the small gains of Upper Bavaria measured the large pull of Munich as balanced against losses in the remainder of the district.

*Areas of Absorption: In-migration Combined with Natural Increase*

Included in this category are those regions growing both through natural increase and migration. A distinction is made between areas in which natural increase is the more important source of growth (C1) and those in which in-migration is the dominant element (C2).

The first of these is a rather rare situation in Europe aside from special circumstances. In-migration is usually concentrated, and large relative to the receiving population. When it occurs it usually outweighs natural increase as an element in population increase. But in Macedonia and eastern Poland diffuse refugee settlement resulted in large population gains, although natural increase was the more important factor in growth. In most other areas in this sub-category, as in the Sofia district of Bulgaria and the Muntenia province of Rumania, large urban gains are diluted to small ones by being bracketed with the out-migration balances of extensive rural districts.

In most European cities migration is a more important source of population growth than natural increase. Therefore, most of the areas appearing in the second subclassification are either cities or districts in which central cities are sufficiently large to dominate the population development of the whole areas. Thus the huge immigration balance in Athens determined the large inward balance of the region Central Greece; the migration into Rome, that of Lazio in Italy; and the migration into Madrid and Barcelona those of their respective provinces. The only exceptions were in France (in a handful of departments in the Savoy and east of Paris) and in western Thrace, where foreign immigration in rural areas was greater than natural increase.

*Areas of Absorption: Repopulation through In-migration*

In the interwar period this category (C3) was confined to France and a few major cities in other countries. It was a growing category as the area of natural decrease enlarged in Europe, but in the years under consideration was still of limited extent.

The above study of the relative importance of natural growth and of migration in population change leads to three conclusions regarding the interwar experience:

(1) Migration was generally a more decisive element of population change in Western than in Eastern Europe. On the one hand the more mobile populations of the West migrated more freely; on the other hand natural increase was lower than in the East. Where natural increase was low or even negative, as in France, migration balances were the decisive factor in population trends.

(2) In Eastern and Southern European areas of high natural increase, out-migration was a contributory but not a definitive solution to problems of population pressure on the means of subsistence. In much of Eastern and Southern Europe natural increase was sufficient to

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bring about rapid population growth in rural areas despite out-migration. Out-migration was not preventing accumulation on already crowded lands.

(3) Interwar trends and probable future developments point to the increased future importance of migration as a factor in population change. While the outlook for large free international and overseas movement is poor,<sup>7</sup> there is every reason to expect accelerated internal migratory movements. If, as seems highly probable, natural increase falls and mobility rises, migration will inevitably assume in Europe generally the importance it now has in France and the British Isles.

<sup>7</sup> It is true that there are now occurring huge forced migrations resulting from boundary changes and nationalistic demands for ethnic "purity" within the new frontiers. However, these scarcely improve the long-run outlook for voluntary international migration, but rather underline the likelihood of very rigid governmental control of international migration in the postwar world.

## CHAPTER IX

### SOCIAL AND ECONOMIC DEVELOPMENT

THE two aspects of the human resources of Europe are first, the number, and second, the characteristics, of its population. The preceding sections have dealt with numerical changes as determined by the forces of birth, death, and migration. We turn now from numbers to the changing attributes of the population as reflected in census and vital statistics, first considering in the present chapter the evidences of social and economic trends common to all European peoples and then, in the next chapter, those marks of cultural diversity that have served as rallying points for hate and conflict.

The latter have often held the stage of popular interest and discussion almost to the exclusion of the undercurrent of general cultural change. A continent torn asunder by internecine conflict is naturally more concerned with those things that divide than with those that mark the common development of its several peoples. In view of the decisive importance of political differences for the welfare of Europe the absorption in schismatic influences is certainly understandable and in many regards appropriate.

Therefore, while analyses of national differences are no doubt useful they have nevertheless led to some distortion of focus. They have often led to an overemphasis on difference rather than likeness, and have thereby promoted the very conflicts they describe. There has been a tendency to attribute fixed and immutable characteristics to peoples which set off one from another. In the popular mind these characteristics have become dangerously associated with physical race, and the overwhelming importance of economic facts and social institutions have been ignored in judging national characteristics. Especially in the field of politics and ideologies observers have been prone to classify in terms of categorical absolutes that deny the common heritage of all European countries.

On the other hand, these analyses of national differences commonly focus their attention solely on political and ideological differences, ignoring other and equally important phases of European cultural development. The underlying forces that have brought about changes in Europe are by no means exclusively changes of government or of ideologies. There are many forces of cultural development that have a distinct European pattern over-riding political boundaries, tariff barriers, linguistic, and even ideological, frontiers. Europe is not a disconnected congeries of unrelated and independent cultural unities. By virtue of living together as neighbors and even as enemies Europeans are closely assimilated in a long and at times glorious historical experience.

In recent times the most important cultural development in Europe has been the spread of the nexus of cultural traits that are comprised in the term "modernization." This is a most unsatisfactory word, but it has the advantage of being more neutral than the aggressive term "progress" which is more commonly applied to the cultural phenomena which the term is intended to cover.<sup>1</sup> On its ideological side this current of cultural change probably has its origin in the secularization of society, in its freedom from the domination of religion, in the development of science, in the emphasis on rational methods of obtaining tangible goals in place of non-rational means largely directed at spiritual or other-worldly ends. But these sources are not measurable and certainly not suited to graphic presentation. On the other hand, the mani-

<sup>1</sup> In the discussion that follows frequent reference is made to "advanced" and "backward" conditions in respect to the measures of modernization discussed. These adjectives are used in a descriptive sense; they are not intended to praise or condemn, though it is recognized that they inevitably carry such connotations in terms of the prevailing values favoring modernization and material progress.

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festations of "modernization" or "progress" are often clearly defined and measurable. Thus the transition from an agricultural, rural civilization to a highly urbanized, industrial society may be readily documented in quantitative terms. The growth of cities and the growing preponderance of urban living is fully measurable. The declining importance of agriculture as a means of subsistence and the growing importance of industry, commerce, and the professions are prosaically but solidly portrayed in the occupational censuses of the various European countries. Rising levels of living have been reflected in measurable increments of material wealth. Improved diet and better health can be demonstrated in the growing physical stature and declining death rates in the populations of advanced countries. The expansion of public education is expressed in terms of falling illiteracy.

These things are objective realities. In many cases the statistics relate to the entire populations and therefore avoid the pitfalls of scattered and casual observation on the one hand, and to a large degree, the dangers of subjective bias on the other. It is, of course, not contended that figures do not lie. Statistics have the defect of being abstractions with the dangerous illusion of exactitude. They are never quite as exact or authoritative as they seem. But they have enormous advantages over the evidence of individual observation and impression. Most observers are interested in the exceptional, the aberrant, the abnormal, not the similarities and resemblances. In statistical observation the former cancel out and the latter emerge in their true importance.

Not only are these evidences of "progress" realities, but they also have a clear pattern and direction of development. In Europe they have a center of common origin from which they have spread slowly but surely in all directions, often with complete disregard for political or linguistic frontiers. Cultural diffusion has been checked by natural and artificial barriers and has been facilitated by trade and communication, and by common historical tradition. Admittedly, geographical and cultural factors have aided or hindered the absorption of the new technological civilization. But it is yet to be demonstrated that any contemporary people, and much less any European people, have effectively ignored its attractions when they have come into close contact with it. Modern civilization is too attractive in its comforts and in its satisfaction of universal wants of hunger and relief from manual labor to be ignored.

In the following discussion it will obviously not be possible to catalog, much less to analyze, all those empirical elements that are a part of "modernization." Limitations of space and of available statistics inevitably restrict such a survey to a few representative indices of the social and economic characteristics.

As in the case of birth and death rates, spatial distance and temporal lag are closely linked in the pattern of European social and economic development. During the interwar period almost inexorable social trends were changing the attributes and manner of life of the average European. Therefore, some attempt is made to supplement the static snapshot of the several indices of social development considered by illustrative examples of time trends.

The several indices used are intended to be representative of major fields of social and economic welfare in so far as these are customarily made available in the census and vital statistics. Physiological welfare, basic to all other forms, is measured by indices of mortality. Literacy, which is certainly essential to effective participation in modern civilization, is used as a general index of educational status. Major differences in the material environment are measured by the degree of urbanization and the nature of work by statistics on occupation. Finally some measures of achievement in economic productivity and consumption are given to suggest the level of economic development of the population.

*Health*

Among the brightest chapters in recent European history is the splendid record in the struggle against disease. In the more advanced countries the average infant before the war began life with the probability of living twenty years longer than did his grandfather. Twenty years of life—that is the gift of modern civilization to the citizen of Western Europe at peace! Few would deny that the improvement in the physiological well-being of the individual is one of the truly great achievements of the age.

No conceivable change in the biological inheritance of the race could explain such miraculous advances in the effective vitality of the European people. The forces that have cut the death rate in half within the space of two generations are clearly cultural and not physical. The achievement of greater physiological well-being is the result of external factors of medical care, public health, and individual hygiene, not of changes in the innate resistance to disease.

Because of the importance of cultural determinants in physiological well-being, measures of effective vitality are here classified as indices of social and cultural development even though in their individual manifestations they relate to purely biological conditions and events. In the modern world the general level of health is socially, not biologically, determined.

Indices of "health," broadly defined, are not readily obtained. Health in its positive aspects is difficult of measurement. In actual fact it is the absence of health, as expressed in illness and death, that finds its way into the statistics. But even here there are difficult problems as regards direct measurement. Information on morbidity suffers two serious defects: difficulties of diagnosis and variations in the completeness of reporting. Despite serious and valuable attempts to establish uniform terminology and criteria in the diagnosis of disease, there are exceedingly great international differences in the accuracy of reporting and of classification. Even greater variations occur in the extent to which illness is medically reported. Even when reporting is officially required, a substantial proportion of cases may escape detection in the large part of Europe where doctors are few and public health organizations are rudimentary.

These difficulties are such that they preclude any general international comparison of morbidity statistics in Europe aside from a few readily identifiable contagious diseases. Instead reliance must be placed on mortality statistics. These have several advantages. Though difficulties may arise as to the cause of death there is seldom any problem in ascertaining the fact. In every European country the law requires the reporting of deaths together with certain facts concerning the deceased. Aside from deaths by accident there is little question but that at the time of death the deceased was decidedly unhealthy. Thus mortality offers a general and reasonably accurate negative criterion of health.

Though numerous general and specific indices of mortality exist, in the following discussion attention will be directed at three ranges of material that may serve to show the significant facts without excessive elaboration. The pattern of general mortality declines in Europe have been discussed above in Chapter IV. To illustrate how these changes have affected the individual's chances of survival the first range of materials presented are the historical developments in the average expectations of life and the position of the several countries of Europe in the middle of the interwar period. A second, and in some regards most sensitive measure of health conditions, is the level of infant mortality. Third, the significant differences in the trends in death rates at the several ages and from various causes are illustrated from the statistics of Sweden, whose excellent health record and long recorded historical experience provide a good case study of the factors contributing to mortality decline.

*Expectations of Life*

The past century has been one of substantially unbroken advance in the average duration of life in Western Europe. One hundred years ago the average expectation of life at birth of the typical Western European was about forty years. There are no adequate mortality statistics extending back this far for Eastern Europe but conditions probably approximated those of India today, where the infant is born with an average expectation of life of about 32 years. As late as 1870-1880 the figure for Austria was at this level, and in European Russia even in 1896-1897.

Since the turn of the century there has been rapid progress in all European countries. Among those countries with any adequate basis for comparison the minimum addition to life expectation since 1900 is ten years, the maximum gain about fifteen. The fruits of medical progress are now widely diffused throughout the European continent, and over the period since 1900 the gains have been rather remarkably evenly distributed among the several countries, though great differences persist in the absolute level of attainment.

An interesting feature of health progress has been its persistence even through war. World War I obviously brought the gradual extension of life to an abrupt conclusion during the years of conflict. But at its end the expectation of life on the basis of the then existing mortality conditions quickly rebounded to levels even higher than those prevailing at the beginning of the conflict. In a number of countries the postwar achievements in the prolongation of life even exceeded those which might have been expected with the continuation of prewar trends through the war years. In these cases the war apparently even accelerated the rate of medical progress, though not, of course, to the extent of compensating for the tragic dissipation of life in the war itself.

The interwar period found the countries of Europe at greatly varying levels of achievement in the prolongation of the life span. In the Netherlands, with its superior nutrition, its highly developed public health programs, its stable economy, and its well-educated population, the average expectation of life at birth had risen above 65 years. At the other extreme the average length of life in Rumania was only about 40 years. Thus the length of life of the average Netherlander was no less than 25 years greater than that of the average Rumanian. Such was the physiological advantage to the individual Dutch citizen of being born into a community of developed technology and excellent medical facilities.

The average years of life remaining at age 0, age 10, and age 40 are depicted for dates typical of the interwar period in Figure 39. The countries are arranged from low to high in respect to the expectation of life of females at birth. The exact order of the countries is therefore dependent on only one phase of life expectation; it will be noted that it only roughly conforms to the average length of life of males at birth and very irregularly to the average years of life remaining at more advanced ages. The order of the array is also influenced by the time period covered and among Eastern European countries by the extent to which correction was made for under-registration of deaths. In a period of rapid advance the place of a country may be partly a function of the years covered. Thus, in the extreme case, the two parts of Ireland probably have roughly equivalent mortality conditions, but in Figure 39 Northern Ireland shows up relatively unfavorably and Eire quite far advanced owing to a decade's difference in the life tables used. The life tables for Rumania, Yugoslavia, and Greece were heavily corrected for under-registration, especially of female deaths. Therefore these countries show up especially unfavorably, though their mortality conditions certainly were among the worst in Europe. The relatively favorable showing of the Soviet Union at higher ages, especially as regards females, is probably owing to the absence of such corrections in the life

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tables computed for that country, though great progress was undoubtedly made after the date for which the life table was computed.

Several ready generalizations may be drawn from the data on the expectations of life presented in Figure 39. First, it is apparent that the great regional differences in vitality noted in Chapter IV are reflected in the greater average length of life of the individual in the countries of Northwestern Europe. The Eastern European pays for his cultural "backwardness" in a greatly reduced expectation of life and all the physiological hardships which that implies.

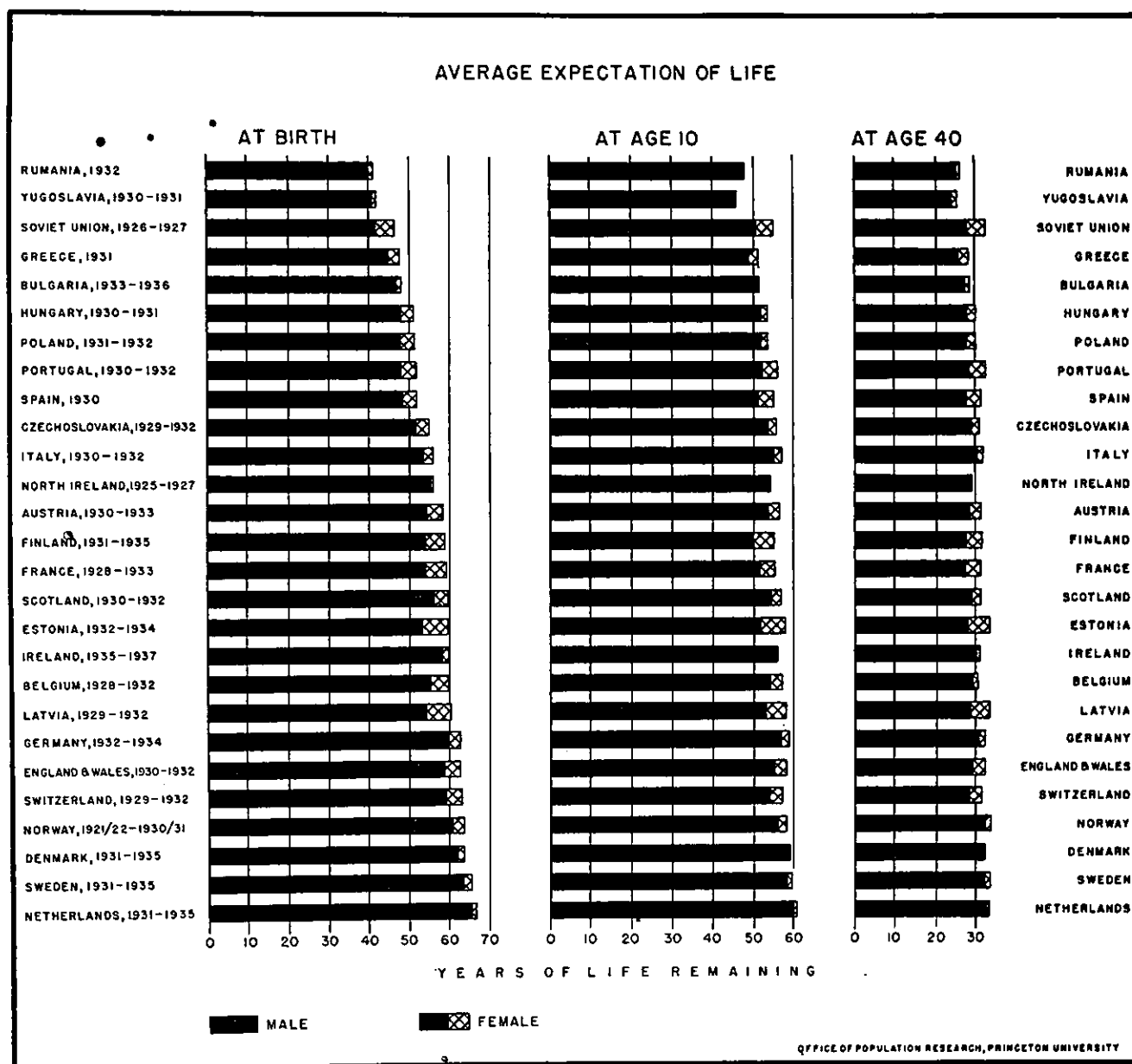


FIGURE 39. Average expectations of life in interwar Europe.

The geographical pattern of development is the now familiar one of greatest advance in Northwestern Europe with a progressively lower expectation of life as one passes through Central Europe to the East and South. Particularly striking is the advanced position of the small Western democracies, whose public health services and progressive social legislation have placed them in the vanguard of Western civilization in the prolongation of life.

A second ready generalization from Figure 39 is that the great regional differences in the expectation of life at birth tend to level out with increasing age. At birth the expectation of life



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ranges from 40.2 in Rumania to 65.1 in the Netherlands for males, and from 41.4 to 66.4 for females, with a maximum difference of about 25 years. At age 10 the differences generally are much reduced. In the countries of severe mortality the expectation of life is actually greater at age 10 than at birth owing to the great hazards to life in the days of infancy and early childhood. Having survived these hazardous years the average ten-year old in Eastern Europe has a greater life expectancy than he did at birth. In the more advanced countries hazards to life in this early period have been greatly reduced, so that the years remaining at age 10 are lower than at age 0. Consequently the regional differences in life expectancy at age 10 are less than at birth. The maximum difference in life expectancy at age 10, that between Yugoslavia and the Netherlands, is 14 years, as compared with 25 years at birth.

The greatest savings of life have been made at the younger ages. The differences in average expectation of life at age 40 are relatively slight, though still significant in relation to the shorter expectation of life remaining at this age. In general the person attaining age 40 may look forward to another 30 years of life and thus fulfill his biblical allotment of "three score and ten." There is a considerable random variation relative to life expectancy at age 40, but whether this reflects true differences or varying accuracy in census and death reporting at the higher ages is not always clear.

A final generalization illustrated by Figure 39 is the almost universally greater longevity of females than of males. In Europe the exceptions are few, insignificant quantitatively speaking, and in some cases of doubtful validity. At birth the average life expectancy is greater for females than for males in every European country. The relative advantage of females appears to be greatest in the Baltic countries, in the Soviet Union, and to a lesser extent in France, Spain, and Portugal. Whether these represent true cultural differences or statistical artifacts is not readily demonstrable, though these countries include those with the largest female majorities in Europe. In Europe the girl baby starts with a life expectancy of one to six years greater than her brother and this advantage is normally maintained throughout life. Only in the ages of the heaviest burden of childbearing is the mortality differential favoring females often reversed. In the majority of countries male mortality is higher even at these ages.

The expectation of life at birth is a cumulative summation expressing the average duration of life in the face of risks of death at all ages and from all causes. On the other hand, the splendid progress made in prolonging the normal life expectation is the result of very great advances in reducing mortality at some ages and from certain causes, combined with little or no improvement in other factors. The reduction of mortality has not been equally distributed either as regards age or as regards cause of death.

Perhaps the most spectacular success of modern medicine and sanitation, and certainly the most important single element in the lengthening of the average duration of life, is the reduction of infant mortality.

### *Infant Mortality*

Infant mortality is one of the most sensitive barometers of social conditions. The infant is extremely vulnerable to most causes of death. Consequently the number of infant deaths is very closely correlated to the quality of health protection the community affords its members. The evaluation placed on the individual human life, the knowledge and education of parents, the quality of the physical environment enjoyed by the population, the effectiveness of public health and social legislation—these are collectively and sensitively measured by the level of infant mortality.

Full appreciation of the advances made in reducing deaths in the first year of life requires

some knowledge of the conditions prevailing in Europe two or three generations ago. In much of nineteenth century Europe, as in India today, one-fourth of the infants born died in the first year of life. As late as 1880 the infant mortality rate (infant deaths per 1,000 live births) was reported as 251 in Austria, 293 in Bavaria, 292 in Württemberg, and 297 in Saxony. Rates were undoubtedly similar in other parts of Central and Eastern Europe though no adequate statistical record exists. About 1900 rates were reported at 200 or above in the German Empire, in Austria-Hungary, in Rumania, and in European Russia.

The level of infant mortality in Europe before the first World War and the subsequent progress in its reduction are depicted in the panel of maps in Figure 40. As in so many other aspects of health the earliest and greatest advances in the reduction of infant mortality were made in Scandinavia. Before the last war Norway and Sweden, in particular, stood far in advance of the rest of Europe. By 1910 substantial progress had also been made in other sections of Western Europe but infant mortality still consumed more than ten per cent of the children in the first year of life. In much of Central and Eastern Europe the profligate waste of life in the first year was still generally regarded as a normal phenomenon.

Despite the war, dramatic progress was made in the succeeding decade. In the first postwar years infant mortality plunged far below the levels prevailing before the war in most countries. The more "advanced" peoples talked hopefully of reducing infant mortality in Europe to five per cent of the live births, a rate only a fourth or a fifth of the rates common in the last century. It was assumed that five per cent probably represented the biological minimum, beyond which medical science could not go.

Advances in the course of the interwar years have set the goal much lower. At the end of the interwar period several of the small democracies had already surpassed the supposed biological minimum of 50 infant deaths per 1,000 births and in these countries rates were still going down. In Western and Central Europe generally the infant mortality had been cut in half by comparison with the figures prevailing thirty years previously.

On the basis of the recorded figures, Eastern European countries made much less progress in the reduction of infant deaths in the interwar period than did Western Europe. In Greece, for example, the officially reported rate for the quinquennial periods 1921-1925, 1926-1930, and 1931-1935 were successively 86, 96, and 122, a record that suggests a serious degeneration of health conditions if taken at its face value. In actual fact the apparent rise is closely correlated with efforts to improve the vital registration system. The sharp rise in reported infant mortality from 99 in 1930 to 134 in 1931 coincides with a concerted effort to achieve greater completeness and accuracy in the vital statistics. Until very recent years the officially reported infant mortality was not sufficiently accurate to base any judgments either on the absolute level or trends of infant mortality in Greece. Similar problems arise in other Eastern European countries in less acute form.<sup>2</sup>

Owing to lags in health progress the several European countries extend on a long continuum of infant mortality ranging from the very low rates in the smaller Western democracies to high rates reflecting the primitive conditions of more backward sections of Eastern Europe. The great range in rates may be suggested by the contrasting figures for the Netherlands and

<sup>2</sup> In general it may be presumed that recorded declines in Eastern Europe were substantially less than the actual, owing to greater completeness in the reporting of infant deaths in the later years, notably with regard to the Eastern and Central provinces of Poland, and those parts of Yugoslavia not historically a part of the Austro-Hungarian Empire. Thus it is not unusual in Yugoslav statistics to find twice as high a reported infant mortality in a Serbian district on one side of the Danube as in an otherwise similar Serbian district on the other bank, the difference being the establishment of reasonably effective vital registration on the side (of higher apparent mortality) formerly under Hungarian administration, and its continuation under Yugoslav control. In general, vital registration appears to have improved markedly in the interwar period though serious lacunae still existed at the outbreak of World War II.

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for Rumania in 1939. In the Netherlands the rate stood at 34 deaths per 1,000 live-born infants, in Rumania at 176. The latter figure represents some advance over earlier reported figures in that country. Nevertheless conditions were such that the average infant born in Rumania had five times as great a risk of death in the first year of life as the average infant born in the Netherlands.

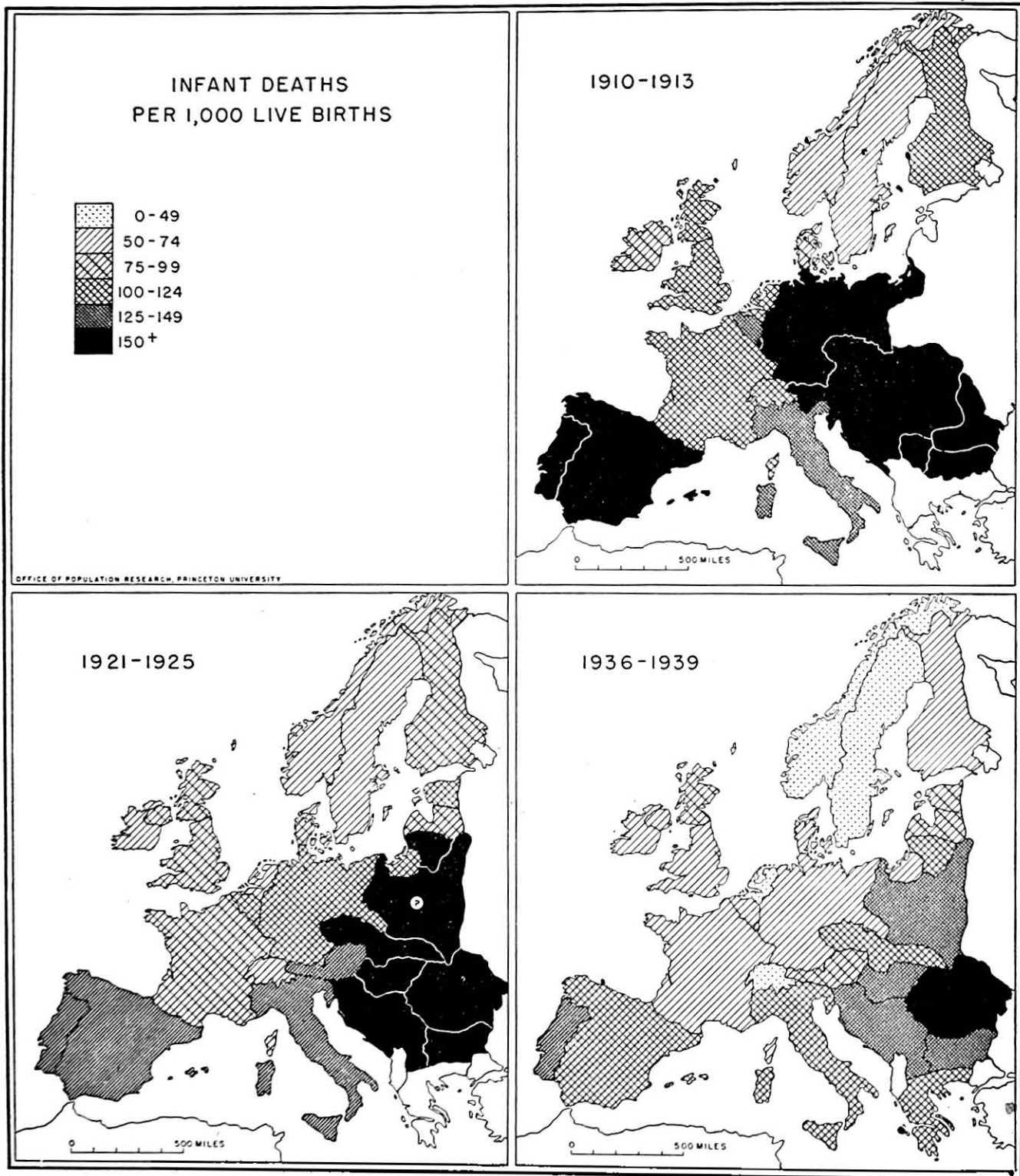


FIGURE 40. Infant mortality in Europe, 1910-1913, 1921-1925, and 1936-1939.

*Trends in Age-specific Mortality Illustrated from Swedish Experience*

The savings of life after the first year have been less spectacular than those of infant mortality, but cumulatively they have been of very great significance. It would be possible to make international comparisons of age-specific death rates similar to that made for infant mortality. For a previous work the author and his colleagues collected data on death rates by age historically for all European countries with usable materials.<sup>8</sup> Though the series covered very different periods of time there was found to be a rather uniform age pattern of decline from high to low, to a considerable degree independent of the time and the country concerned.

This being the case, the following illustration from Swedish statistics may serve to demonstrate the general European pattern of mortality decline without the extensive elaboration necessary to review the historical declines of age-specific mortality in each of the twenty-seven countries. There are national and regional differences but all represent variations on a theme substantially independent of time or nationality.

Sweden is without a rival in the length of her historical records of vital events. Her vital statistics cover almost 200 years on a national basis. Her experience is that of a country in the vanguard of health progress for at least a century, and for much of that time the prototype of later developments in other countries.

The pattern of changing risks of death at each age in Sweden is illustrated by Figure 41, showing age-specific rates in the decades 1851-1860 and 1900-1910, and in 1939. In the first period the average life span in Sweden was about that of Rumania in the interwar years, though at that time Sweden probably had the lowest mortality in Europe. Since the middle of the last century Sweden has maintained her place in the forefront; the Swedish mortality experience in 1939 is one of the most favorable on record.

The average risk of death varies greatly from birth to advanced age. The shock involved in birth and in adjustment to the external environment brings a heavy cost in infant mortality. Premature birth, congenital malformation, and accidents at birth take a heavy toll in the first weeks. The infant's chances of survival improve rapidly through the first year though he remains highly vulnerable to gastro-intestinal, respiratory, and communicable diseases in general.

The risk of death declines through childhood, the maximum vitality being attained at about age 9 or 10, the risk of death being only a tiny fraction of that during the first year. From the early 'teens the death rates begin to rise slowly with age. The death rates accelerate rapidly in middle life, and reach extremely high levels at the advanced ages.

The fundamental U-shaped curve expressing the changing risks of death through life has maintained through great changes in the absolute level of mortality. But its particular configurations, especially at the younger ages, have been changed a great deal. Infant mortality, already substantially reduced from earlier levels in Sweden in the middle of the last century, fell precipitously. By 1939 the risk of dying in the first year of life had been reduced below that at age 70. Mortality in early childhood, once a hazardous period of life, has been reduced to astonishingly low figures, and annual deaths at ages 5-15 now average only one per thousand. At ages 20-40 mortality has reached a low plateau, the effects of the aging process in this period apparently being to a certain extent compensated for by the difficulties of adjusting to adult life and perhaps to the greater exposure to risks of death through accident and childbirth in the younger adult years. The curve of death rates has been flattened even into late middle life, but inevitably the curve rises sharply in the more advanced years.

<sup>8</sup> Notestein et al., *The Future Population of Europe and the Soviet Union* (Geneva: League of Nations, 1944). Chapter I and Appendix I.

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The differential gains in mortality accomplished at the several ages are depicted in Figure 42, showing the age-specific death rates in 1901-1910 and in 1939 as proportions of the corresponding figures for 1851-1860. The cumulative effects of these differential gains is very striking. The average risks of death at ages 1 through 10 in 1939 were less than ten per cent of those a century earlier. At the other extreme, the death rate at ages 80 and over was still 89 per cent of that in 1851-1860. In general the cumulative saving of life has been greatest

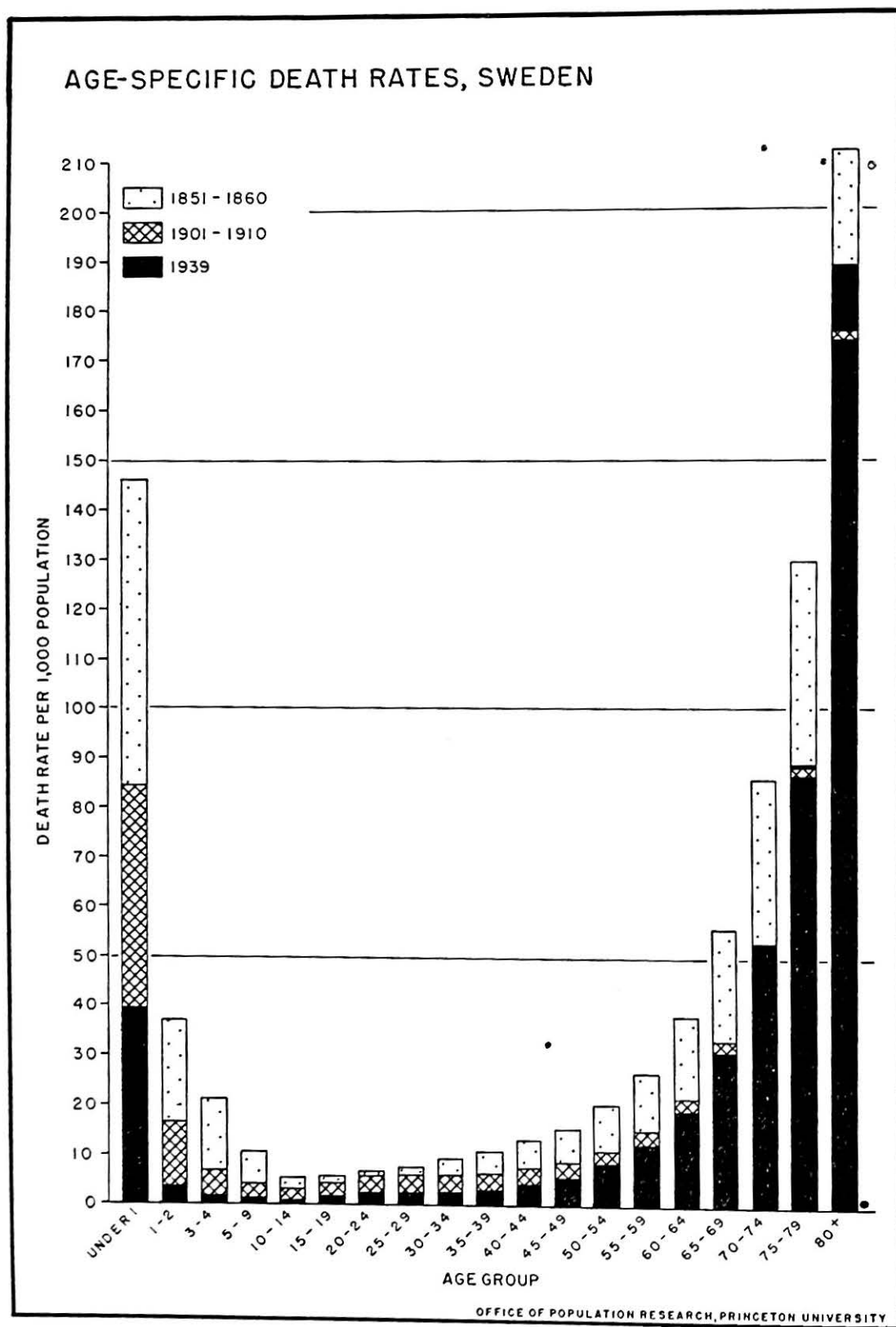


FIGURE 41. The reduction of age-specific death rates in Sweden, 1851-1860 to 1939.

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in the younger ages, least in the oldest. But a comparison of the curves for 1901-1910 and 1939 (in Figure 42) suggests that this is a comparatively recent phenomenon.

In the earlier stages of mortality decline from the wasteful levels prevailing through most of human history, gains are distributed through all ages. At this phase of development the greatest savings of life are made through control of the more serious epidemic diseases. Though in the middle of the last century Sweden stood in the vanguard in epidemic control the country still suffered from the ravages of deadly diseases now practically extinct in advanced countries. Such diseases as typhus, cholera, smallpox, and typhoid fever were leading causes of death. Widespread vaccination, purification of the water supply, and the effective isolation of diseased persons made themselves felt in the latter part of the nineteenth century and are reflected in the

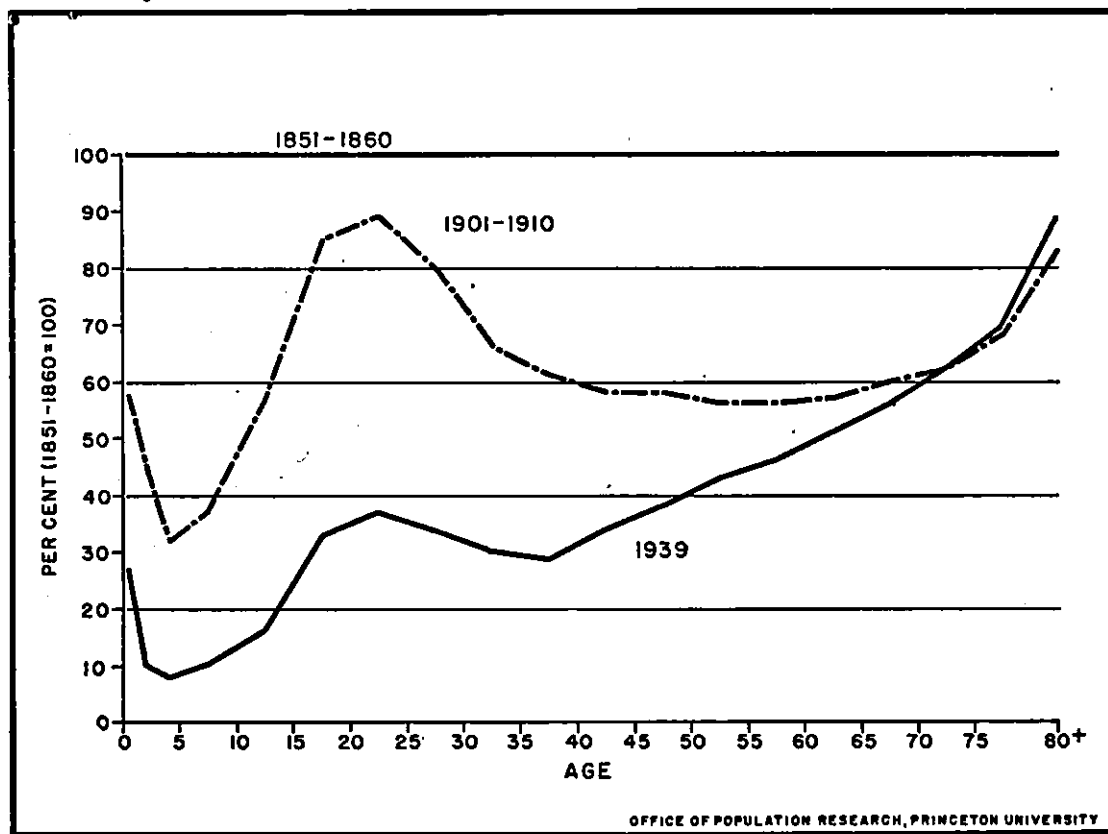


FIGURE 42. Swedish age-specific death rates in 1901-1910 and in 1939 as per cents of those in 1851-1860.

reduction of mortality at all ages. By 1900 the easy gains to be derived from the elimination of the more serious epidemic diseases had already been made.<sup>4</sup>

In later years progress was largely in the realm of childhood diseases and infectious diseases of non-epidemic character. Especially noteworthy has been the effective attack on the communicable diseases of childhood—diphtheria, measles, scarlet fever, and whooping cough. Supplementing these gains and of great importance in the ages of adolescence and young adulthood has been the splendid progress in the reduction of deaths from tuberculosis. The mortality of this disease was reduced by more than half in the interwar period alone, and these gains chiefly account for the proportionately very great reductions in mortality since 1900 at ages 10-40. The combined effects of such gains has been to reduce the risk of dying at ages 1-20 by three-fourths just since 1900, and by over two-thirds at ages 20-40.

<sup>4</sup>Influenza is of course an outstanding exception to the general elimination of epidemic diseases. In 1939, 740 of the 1,008 Swedish deaths from epidemic diseases were attributed to the grippe.

The great reduction of mortality reflected in the Swedish statistics is chiefly a product of achievements in the control of epidemic and infectious diseases. This has been accomplished on the one hand through public health measures directed at eliminating insect carriers, removing filth sources of disease, purifying the water supplies, isolating infected persons, and providing immunity through inoculation. These measures have been supported by improved living conditions, better housing, superior diets, better working conditions, and education, which combined provide means and the knowledge for combatting disease much more effectively than in the past. The rising standard of living has probably been an especially important element in increasing resistance to such diseases as tuberculosis.

By comparison with the spectacular achievements in reducing the toll of infectious diseases there has been relatively little success in the treatment of organic diseases. Since these are the chief causes of death in late middle life and old age, mortality at these ages has not experienced the startling rate of decline observable at the lower ages. Since 1900 there has been little improvement in Swedish death rates at the higher ages; in fact, the reported rate at ages 80 and over actually shows an increase. Cardio-vascular diseases, diabetes, cancer, and other typical infirmities of the aged, have yielded little to modern medical knowledge. With the aging of the population these have become increasingly prominent causes of death in all European countries, but particularly in those countries like Sweden, that have gone far in the control of infectious diseases.

### *The Future*

The mortality experience of the interwar period was one to justify optimism regarding the possibilities of further improvement in health and the further extension of the average expectation of life. The average peace-time duration of life in Europe at the outbreak of the Second World War was generally about ten years greater than at the onset of the First a generation before. In the twenty years of the interwar period millions of lives were saved owing to improvements in care of health and death control. Among the four major Western powers (France, Germany, Italy, and England and Wales) there were some nine million fewer deaths in the interwar period than would have occurred at 1910 mortality. In these four countries savings from infant mortality alone over what would have occurred at 1910-1913 rates amounted to three and one-half millions. In Europe, west of Russia, with thrice the population of these countries, the net saving of life through health progress must have reached a very high figure indeed.

Savings of life through mortality reductions within the interwar period (e.g., from 1921 to 1939) were naturally of lesser magnitude. But in the four major Western powers the accumulated saving of lives totalled about four millions, some half of which was owing to the reduction of infant mortality alone. In Europe west of Russia the saving through mortality declines probably attained eight millions.

The existing mortality differentials and the patterns of past development suggest that further major savings can be achieved in the postwar world. Possible future achievement is illustrated by Table II, showing the saving of life in 1939 had the age-specific rates of the Netherlands applied in each European country. The potential saving at Dutch mortality varies with the size of the country, with its progress in the reduction of mortality, and with its age distribution in 1939. In Europe west of Russia 1.9 million lives would have been saved in the single year had Dutch health standards been those of all Europe. The realizable savings at Dutch figures in the smaller Western democracies are naturally minor because these countries are themselves in an advanced position. But even in the technologically advanced countries such

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TABLE II

Preventable Deaths in Prewar Europe as Measured by Age-Specific Mortality in the Netherlands, 1939

Region and Country	1939 Deaths (000's)		Excess Deaths	
	Registered <sup>1</sup>	At Dutch Mortality Rates <sup>2</sup>	Numbers (000's)	Per Cent
Europe (excl. the U.S.S.R.)	5496	3593	1903	35
Northwestern and • Central Europe	3012	2316	696	23
U.K. and Ireland	623	511	112	18
England and Wales	500	415	85	17
Ireland	42	33	9	21
Northern Ireland	18	14	4	22
Scotland	64	49	15	23
West-Central Europe	2148	1602	546	25
Austria	102	69	33	32
Belgium	116	86	30	26
Czechoslovakia	184 <sup>3</sup>	137	47	26
France	643	458	185	29
Germany	854	658	196	23
Hungary	125	78	47	38
Netherlands	76	76	—	—
Switzerland	49	40	9	18
Northern Europe	241	204	37	15
Denmark	39	36	3	8
Estonia	17	13	4	24
Finland	54	35	19	35
Latvia	28	22	6	21
Norway	30	30	—	—
Sweden	73	69	4	5
Southern and Eastern Europe	2484	1276	1208	49
Southern Europe	1175	675	500	43
Italy	591	407	184	31
Portugal	116	63	53	46
Spain	467	205	262	56
Eastern Europe	1309	601	708	54
Albania	16	7	9	56
Bulgaria	84	45	39	46
Greece	93	52	41	44
Lithuania	33	20	13	39
Poland	480 <sup>3</sup>	247	233	49
Rumania	370	129	241	65
Yugoslavia	233	102	131	56

<sup>1</sup> *Statistical Year-Book of the League of Nations, 1941-1942*, Geneva, 1944.

<sup>2</sup> Computed by applying Netherlands age-specific mortality rates for 1939 to the estimated number of persons of corresponding age and summing the products to obtain the total number of deaths "expected" in each country at Netherlands mortality levels.

<sup>3</sup> Deaths in 1938.



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as England, France, and Germany a substantial proportion of the peace-time deaths in 1939 were avoidable. Roughly a sixth of the deaths in England and Wales resulted from mortality in excess of the Dutch rates; in Germany, France, and Italy the percentage excesses were respectively 23, 29, and 31. In Eastern Europe, up to two-thirds of the deaths in 1939 were preventable at Dutch levels of achievement. Such is the price in human life of cultural backwardness.

With a modicum of political stability Dutch levels of mortality are not an unreasonable goal for the continent as a whole. For Europe west of the Soviet Union they predicate a 35 per cent reduction in mortality. With regard to the possibility of achieving this goal and the time necessary for its achievement it is interesting to note that between 1910 and 1939 Dutch mortality (as related to the 1939 age distribution) fell 37.8 per cent. In 1910 Dutch mortality conditions were as bad as the European average in 1939. Given the Dutch rate of progress in the past generation, Europe as a whole will achieve by 1970 the goal set by the Dutch in 1939.

The achievement of this goal should be greatly facilitated by the truly startling discoveries in chemotherapy and bacteriophage made since 1939. It seems likely that even in the most advanced countries mortality from infectious diseases such as pneumonia will be spectacularly reduced in the next few years. Likewise, owing to the use of plasma and the new drugs, a large percentage of deaths from accidents, surgery, and violence may be prevented. Even in such countries as the Netherlands there is room for substantial gains in these lines.

Nevertheless, it is obvious from Figure 41 that future gains at the younger ages in such countries as Sweden and the Netherlands will inevitably be quantitatively small in relation to past achievements. Thus in the Netherlands if there were no deaths under age 30 there would be a smaller net saving of life than was actually achieved at these ages between 1920 and 1939. In other words, the death rate at all ages under 30 was reduced 50 per cent or more in the interwar period alone. Further gains of equal proportion may be achieved but it is apparent that the quantitative gains of the past at these ages can never be repeated.

The indefinite continuations of past trends in the prolongation of life depend on the success of attacks on the diseases of late middle life and old age. But as yet the science of geriatrics has made only a beginning. It will be of increasing importance with the growing proportion of older people in the population.

With peace Europe gives promise of great improvements in the effective vitality and physiological welfare of her population. The past record has been a brilliant one, but much remains to be done.

### *Literacy*

Few characteristics of contemporary civilization distinguish it more sharply from its predecessors than the existence of free public education. No previous civilization has been so broadly based on the general understanding of the written word. An ability formerly confined to the privileged classes has become the property of all. Just as modern public health controls have made possible a great extension of life for the common man, so has universal education opened the doors of knowledge to everyone with the will and the intelligence to absorb it.

The education of all its citizens is a generally accepted responsibility of the modern state, and the extent of public education is an appropriate measure of a nation's place in the scale of cultural development. Opinions differ as to the merits of various forms of advanced education but there is universal agreement that the ability to read and write is a *sine qua non* of effective

participation in contemporary society. The percentage of literacy or illiteracy is therefore a measure of a population's ability to participate actively in intellectual life. Commonly determined in statistical form, it is a useful index of cultural development and the only general measure of educational progress unhampered by questions relating to quality of education.

The measurement of the historical spread of literacy is complicated by the difficulties that are to be encountered in so many other aspects of demography. Several countries, including a number of the most important ones, do not record literacy in their census statistics, and in these countries reliance must be placed on literacy statistics relating to conscripts or to persons marrying. Definitions of literacy vary; thus in some countries literacy is defined as the ability to read, in others as the ability to read and write. Since young children cannot be expected to be literate they are often excluded from the computed percentage of illiteracy, but practice varies from country to country. Where children are omitted from the literacy statistics, varying ages from five to fifteen have been used as the line of demarcation, further adding to the difficulties of comparison both as between countries and as between successive censuses in the same country.

Such difficulties preclude a comprehensive statistical review of the remarkable progress made in the education of Europe's people during the last hundred years. But certain general trends are unmistakable. It is first of all apparent that the decline of illiteracy is a completely universal trend in Europe. There is no evidence of any rise in illiteracy in any country of modern Europe. Secondly, there has been an orderly pattern in the advance of literacy. In all countries there is a small nucleus of literate persons, but historically this nucleus grows slowly until the country is struck by the full impact of modernization. Once free public education is widely introduced the illiteracy of the masses retreats rapidly. The percentages of adult illiteracy drop spectacularly by half to two-thirds in a single generation. As 100 per cent literacy is approached, both absolute and percentage gains are reduced. In the final stages adult illiteracy is confined to the irreducible minimum of persons mentally incapable of learning to read and write.

#### *Historical Progress: An Illustration from Italian Experience*

The progress of education in Europe may be illustrated from the experience of Italy. The average illiteracy in Italy has approximated that of Europe without Russia.<sup>5</sup> As in the continent as a whole, illiteracy in Italy ranges from almost negligible proportions in the advanced North to half the adult population in backward regions of the South and Southeast.

The diminishing proportion of illiterates in the several regions of Italy is illustrated in Figure 43, showing the historical developments over a fifty-year time span. In the earlier stages the largest quantitative gains were made in the Northern regions and especially the Lower Po departments of Veneto and Emilia. Progress was relatively small in the Southern and Insular departments, in which free public education was just gaining a foothold, and where it had to face the inertia of an overwhelmingly illiterate population.

After the turn of the century the curve of literary progress in the Northern regions began to taper off as complete adult literacy was approached, first in the industrial region and then in the Lower Po. The remaining regions of the country were enjoying the cheap progress attainable in the earlier phases of general free public education, once the nucleus of educated persons had risen sufficiently to supply the core of instruction. In these regions progress was even more rapid than before.

<sup>5</sup> Though in recent years progress in Italy has been rather slower than in other countries of comparable educational development.

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To ascertain the generalized curve of educational advance in Italy regardless of region or time, the several curves depicted in Figure 43 are superimposed in one time sequence in Figure 44, first in the curve for the period 1881-1931, and then in the curve from 1901 to

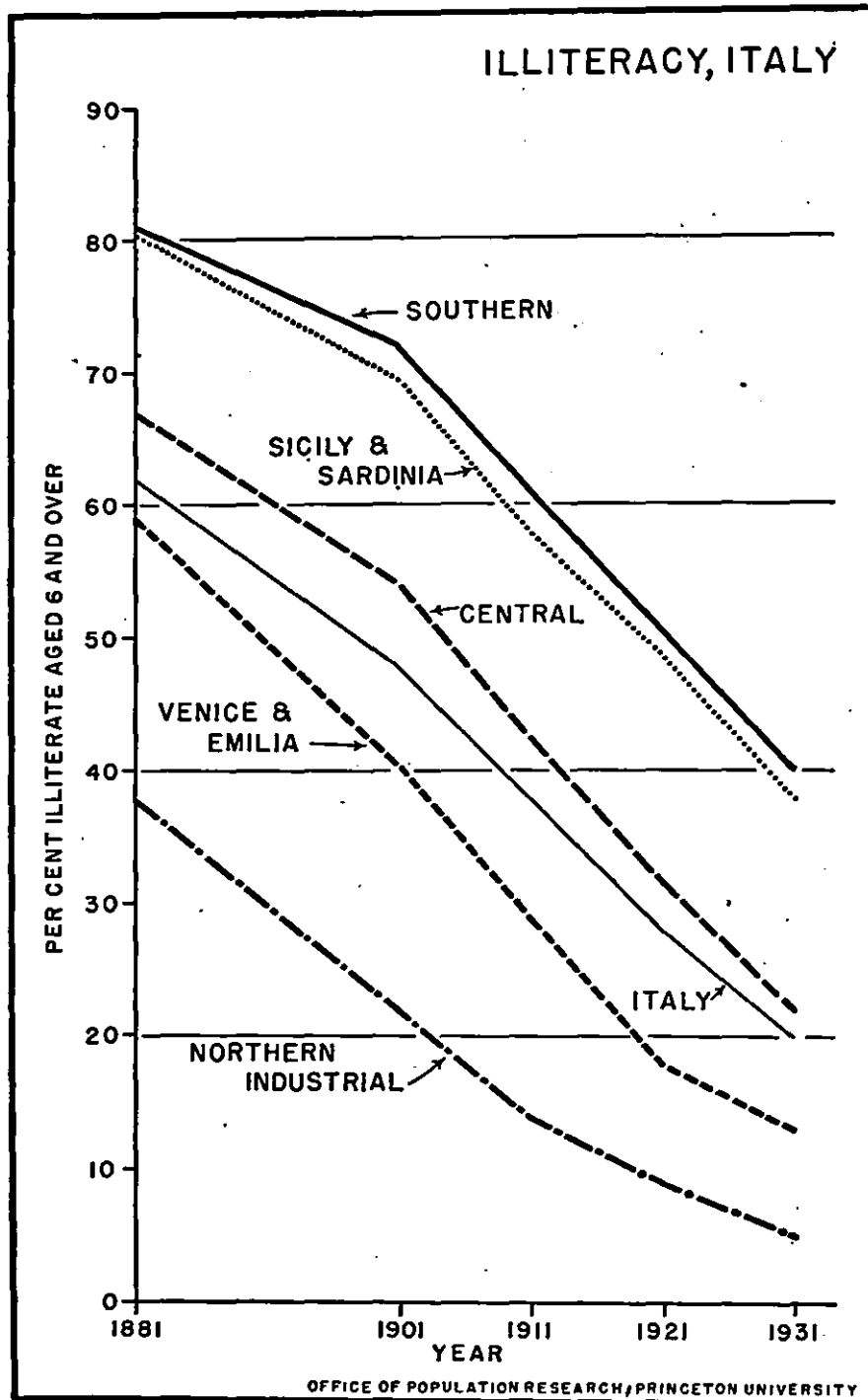


FIGURE 43. The decline of illiteracy in Italy and its component regions, 1881-1931.

1931. In the average Italian experience it has taken a century to advance from the worst experience (i.e., in the Southern departments in 1881) to the best (that of the industrial North in 1931). In 1881, the latter region had a percentage of illiteracy almost identical to that of the Southern departments in 1931.

There is some deviation from the general pattern of decline, notably as regards the period 1881-1900, when progress appears to have been somewhat slower than at later dates. When

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attention is confined to the period 1901-1931, the progression is remarkably consistent from region to region.

Though conditions inevitably varied from country to country in the last few decades, all Europe was witnessing the retreat of illiteracy. The pattern of progress is indicated, if not precisely defined, by the downward course of illiteracy in the several regions of Italy.

*Illiteracy in the Interwar Period*

The extent of educational achievement in the middle of the interwar period is mapped in Figure 45, showing the per cent of illiteracy among the population ten years of age and over

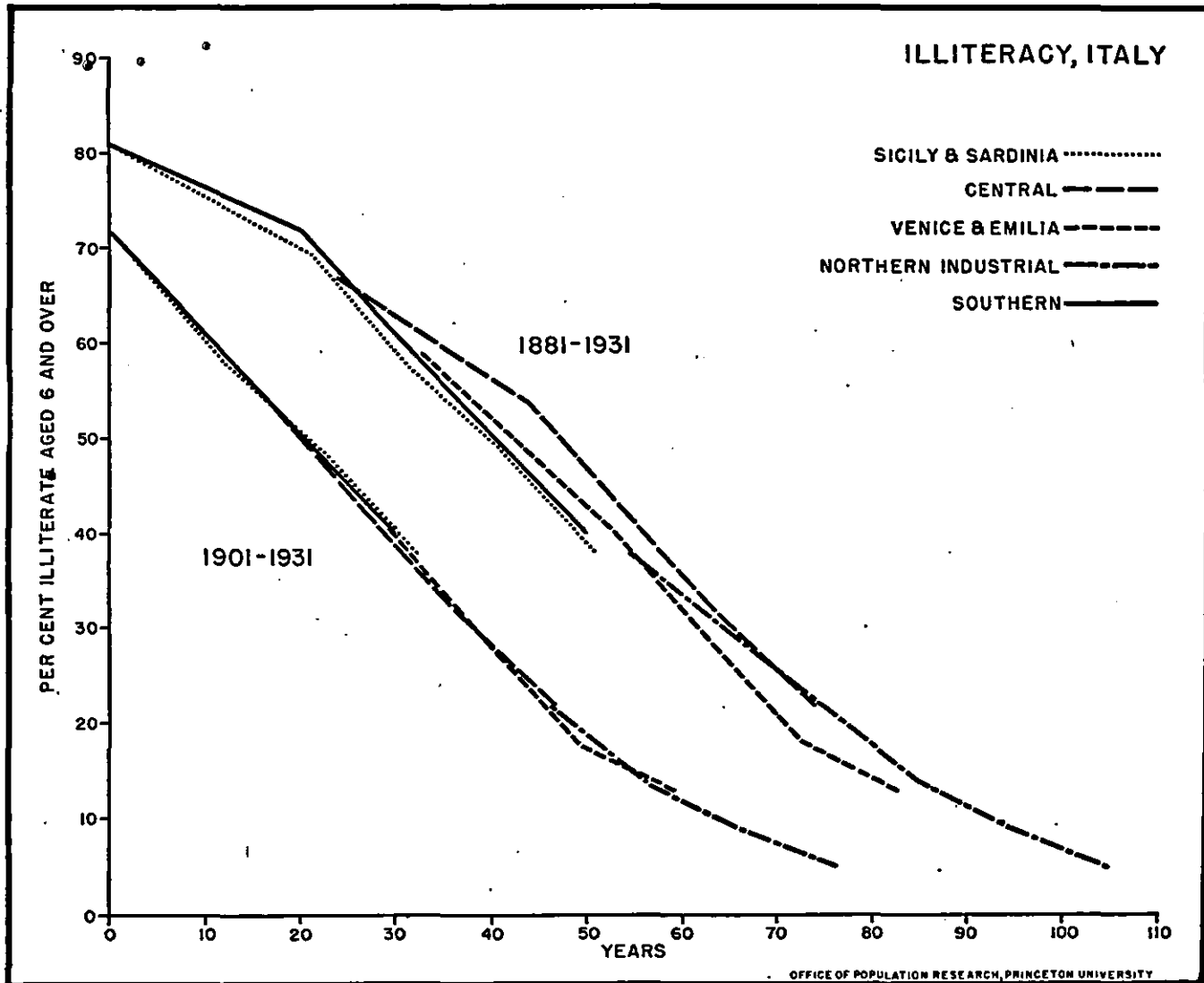


FIGURE 44. The pattern of declining illiteracy in Italy, 1881-1931 and 1901-1931.

for the several hundred minor areas.<sup>6</sup> For this purpose the definition of literacy was taken to be the capacity to both read and write.<sup>7</sup>

Despite great historical progress in the reduction of illiteracy, in the middle of the interwar period there remained some 43 million illiterate persons ten years of age and over in Europe

<sup>6</sup> The data mapped are given in Appendix II.

<sup>7</sup> In most cases the reported difference in the numbers literate by this definition and by less severe ones (i.e., the capacity to read only) is small. The difference was significant only in the case of Finland, where historically the educational system favored elementary instruction in reading, with little attention to writing. According to the 1930 census of Finland, less than one per cent of the population were unable to read, but some 14 per cent were unable to both read and write.

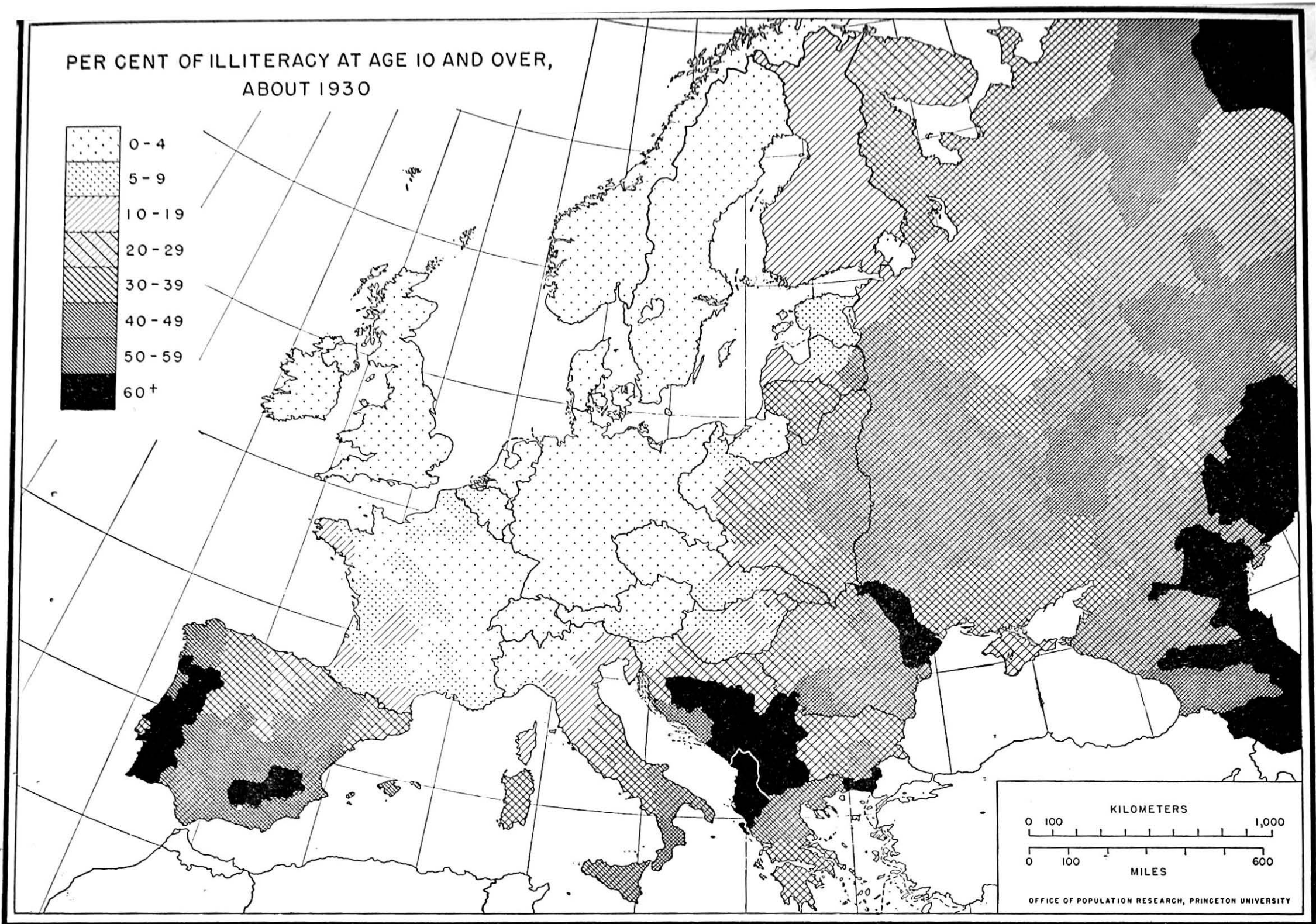


FIGURE 45. Per cent of illiteracy in Europe, by minor divisions, about 1930.

west of the Soviet Union. The over-all illiteracy was 14 per cent in this area. In the Soviet Union almost half of the population age nine and over was illiterate in 1926. In Europe and the Soviet Union combined, illiteracy amounted to about 21 per cent in 1930.

This average proportion, of course, was not typical of all countries, among which there were great variations. Illiteracy, in the sense of complete inability to read and write, has practically disappeared in the old centers where free public education is a longstanding tradition. In other sections of Europe most of the adult population was still ignorant of the written word and how to form it. As in so many other cultural traits, the most important element in the degree of literacy was geographical proximity to, and cultural intercourse with, the more literate regions of Northwestern Europe. The map of illiteracy is essentially the now familiar pattern, shading from the almost entirely literate areas of the Northwest to the very high illiteracy of the more remote sections of the Iberian Peninsula, the mountain fastnesses of the Balkans, and the peripheries of European Russia. This is the basic frame of reference within which other determinants operate.

The general relationship of illiteracy and distance from the main cultural centers has been modified in its details by a number of cultural elements. Religion, language, political association, and political policy have all played an observable role in the degree of literacy. Thus in Protestant countries the development of free public education has been re-enforced by the religious precept that everyone should know how to read the scriptures. Though this precept is no longer of great practical importance as a stimulus to elementary education, it has been a traditional element in creating the almost complete literacy observable in most Protestant countries. In general, Protestants have higher literacy than their neighbors of other faiths. Even in relatively remote regions, such as the Baltic States, the literacy of Protestants was high.<sup>8</sup>

In some areas customary language has been a factor in determining the degree of literacy, especially where the official language differs from that of the language of the people. Where the home language differs from that of the school the child is naturally handicapped in learning how to read and write. The higher illiteracy of both French and Belgian Flanders relative to neighboring regions arises partly from the ambivalence of Flemish home language and French cultural language.<sup>9</sup> Though now almost completely literate, Ireland long lagged behind England in educational progress owing to linguistic and other sources of conflict between the Irish and the dominant English. In old Imperial Germany the higher illiteracy of the Polish-speaking populations in the eastern sections of the country no doubt partly arose from the fact that in order to become literate they often had to learn to read and write in an alien tongue. Such examples could be multiplied many times in Europe.

Closely allied to the influence of language in some regards is the influence of political association. In the middle of the postwar period the cultural effects of old political boundaries were still clearly evident in literacy data. The thoroughness of the old German public schools was evidenced in the fact that Alsace-Lorraine is the most literate section of France. The line of old German Poland is clearly demarcated in the Polish Republic by its high literacy. The influence of the old Austro-Hungarian Empire is apparent throughout Central Europe. From Silesia eastward all the way around its long boundaries across Poland, southward through Rumania, and again westward across Rumania and Yugoslavia to the Alps, the boundaries of the old Empire can still be clearly traced solely from literacy data. Though the general pro-

<sup>8</sup> Finland and Estonia are overwhelmingly Protestant, Latvia predominantly so.

<sup>9</sup> It is of course true that Flemish is now taught in the schools of Belgian Flanders, so that the comparative retardation of the Flemish people is a carry-over from earlier ambivalences. Also in Northwestern France the higher illiteracy is now as much the result of the immigration of illiterates from abroad as of the older difficulties of the Flemish-speaking population in the Département du Nord and in Pas-de-Calais.

gression of rising illiteracy from west to east prevailed within the Empire as well as outside of it, the Austro-Hungarian territories were more advanced than neighboring areas under other rule. Thus in Poland, old Austrian Galicia is readily distinguished from old Russian territory by its higher literacy. In Rumania, the old Austro-Hungarian regions of Bucovina, Transylvania, and the Banat stand out sharply from the Old Kingdom. Though in Yugoslavia the boundaries were deliberately drawn with a view to obscuring older historical boundaries, the old borders of the Austro-Hungarian Empire are roughly indicated by the sharp gradient of illiteracy between the northern sections of Yugoslavia, and the remainder of the country. In detailed maps of literacy in Yugoslavia the line may be precisely determined on the basis of literacy data alone. Austrian influence in Dalmatia and in Bosnia and Herzegovina is less apparent. In the former, schooling was general only in the coastal areas, and in the latter, Austrian administration was never fully established. Here, as in many other parts of Europe the cultural influence of the old boundaries was still strong in the interwar period.

Finally, and quite important in recent years, have been differences in social philosophies as reflected in governmental efforts on behalf of education. Before the last war most of Russia would have appeared in the highest category of illiteracy. According to the census of 1897 three-fourths of the Russian population aged 9 and over was reported as illiterate. No less than seven-eighths of the adult females did not know how to read and write. Partly as the result of progress under the Czarist regime, but especially owing to the emphasis of the Communist Revolution on general enlightenment, the proportion of literate persons had been doubled by the middle of the interwar period. The importance of the Communist efforts in speeding up the educational progress is suggested by the high illiteracy of Bessarabia relative to the neighboring Russian areas to which it was formerly politically connected.<sup>10</sup>

Within the Soviet Union historical factors continue to affect the degree of education. Thus in literacy, as in other cultural factors, the Baltic window of Russia showed greater advance than areas having less contact with other countries. The Moscow industrial area shows the higher literacy of a relatively urban and economically developed region. Further east, the Volga Germans inhabited an area of relatively high literacy. The Crimea, the region of the Southern Steppes, and the Urals, which are all relatively prosperous regions of immigration in recent decades, appear to be more literate than the old backward regions of the west and center, and especially the Asiatic peoples of the peripheries.

Under the dynamic impact of an expanding Communist economy these historical differences are dissolving. According to the Soviet census of 1939, illiteracy has been reduced to less than a fifth in the population nine years of age and over. Though the extent to which illiteracy has been vanquished may be exaggerated in the enthusiasm for cultural progress and in the importance of reporting oneself as literate for prestige reasons, the fact remains that the political ideology of the U.S.S.R. has sped the course of educational advance.

The influence of specific governmental policy, as opposed to general cultural development, is most marked in the Soviet Union. But the current of progress has been accelerated or retarded in other countries in accordance with governmental policy. Thus owing to a relatively vigorous educational policy Bulgaria has been rather more successful than its Balkan neighbors in the attack on illiteracy. By contrast, the failure to extend the public school system to the rural *concelhos* in Portugal has resulted in slow progress in that country in reducing illiteracy. In general the Latin countries have made a less ardent attack on illiteracy than the countries of Northwestern Europe and, more recently, those of Eastern Europe.

<sup>10</sup> The comparison is not entirely fair in that the mixed population of Bessarabia has been handicapped by the changes in official languages to which the population has had to adapt itself.

*Prospects of Future Progress*

In the normal course of events past trends and interwar developments presage the practical disappearance of illiteracy in Europe within a few decades. In contemporary Europe illiteracy is chiefly a phenomenon of middle and old age, a carry-over from days before the general establishment of universal education in backward countries. Illiteracy rates steadily rise with ages over ten; among those countries for which literacy was tabulated by comparable age groups two-thirds of the illiterates were over thirty in the year 1930. In these countries, including a majority of those in which there remains an appreciable amount of illiteracy, almost half of the persons over age 60 were illiterate (Table 12). These were chiefly persons who

TABLE 12  
Illiteracy by Age for the Eleven Countries  
with Comparable Data from Censuses  
Taken about 1930<sup>a</sup>

Age Group	Per Cent Illiterate
10-14 <sup>b</sup>	13.7
15-19	17.0
20-29	19.5
30-59 <sup>c</sup>	28.5
60+ <sup>c</sup>	48.6
Total 10+	25.6

<sup>a</sup> Illiteracy defined as the inability to either read or write. The eleven countries are: Belgium, Bulgaria, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Portugal, and Yugoslavia.

<sup>b</sup> For Yugoslavia Age 11-14.

<sup>c</sup> For Italy Ages 30-64 and 65+.

normally would have had their education prior to 1885. In the age group 30-59 the proportion was much smaller, representing as it does persons who were of elementary school age in the thirty years preceding the First World War. Despite the fact that a high proportion of them were of school age during the war, persons 20-29 were substantially more literate than their seniors, and they in turn were surpassed by their juniors.

The countries included in this survey had a total average illiteracy of 26 per cent at age 10 and over, not far from twice the general European average of 14 per cent in 1930. Even with no extension of primary education beyond 1930 levels, illiteracy in these countries would fall to the European average when the older and more illiterate age groups disappeared from the scene. In actual fact there was undoubtedly great progress even between 1930 and the outbreak of the Second World War in bringing elementary education to more isolated regions.

Given the same degree of order in Europe as has existed in the past thirty or forty years, and the continued regression of illiteracy on the pattern of the experience of the several Italian regions in Figure 44, by 1970 illiteracy in the European areas west of the interwar Soviet Union will have shrunk to 2 per cent of the population over age ten. The application of the Italian pattern to the Soviet Union would yield a decline of a reported 19 per cent illiteracy in 1939 to about 5 per cent in 1970. In other words, even assuming the relatively slow rate of Italian development Europe will be almost wholly literate twenty-five years hence.



*Occupational Structure*

The process of modernization is commonly thought of as chiefly an economic development. In fact the word "industrialization" has come into common use for the purpose of describing the changes which occur in the transition from peasantry to contemporary urban society. This is an oversimplification of the broad cultural changes which are occurring. But it is undeniable that the core of these changes lies in the difference between the old way of life, as symbolized by occupation in agriculture, and new ways of life in non-agricultural pursuits. The average man spends half his adult waking hours making a living. Whether that living is made as a peasant toiling on the land, as an unskilled workman beside a machine, as a clerk in a government office, or as a man of the professions, it clearly is a vital determinant of personal and social existence. During his working hours he is directly conditioned by the nature of his occupation; outside of them his place of residence and his social environment are often largely determined by the location of his job and the social status that it conveys.

Agriculture has been for centuries the chief occupation of mankind; it continues to be so today. From time immemorial food-getting has necessarily been the dominant preoccupation of the human race. Up until very recent times agricultural techniques and transport have been so defective that the bulk of the population had to participate in agriculture or starve. Surpluses available for urban populations have been small. A century ago it required three European farm families to supply the surplus for one family engaged in another occupation. In the more advanced countries this position has been reversed, so that the average farm family alone is now feeding itself and three additional non-agricultural households.

Combined with great gains in the agricultural productivity have been even greater achievements in industry and transportation. The agricultural revolution has made possible and the industrial revolution has achieved a complete transformation in the economic system. Perhaps the sharpest single measure of this transformation is the extent to which other occupations have replaced agriculture as a means of subsistence.<sup>11</sup>

*The Agricultural Population*

Figure 46 shows the proportion of the population dependent on agriculture in the several hundred minor divisions of Europe. In some regards the map is less satisfactory as a method for showing occupational distribution than as a means of portraying other social and economic indices. The non-agricultural populations cluster in the cities, which may appear as tiny areas on the map, while the agricultural population is widely dispersed owing to the nature of farming. Particularly in more industrial countries, this presentation magnifies the apparent importance of relatively thinly settled agricultural regions.

Nevertheless the two Europes, the farming and the industrial, stand out clearly on the map. A line drawn along the eastern shores of the Baltic projected through Poland and along the eastern borders of Austria and Italy to the Adriatic effectively bisects the Europe of 1930 into its industrially developed West and its overwhelmingly agricultural East. As in so many other aspects Southern Europe occupies an intermediate position between the industrial heart of Western Europe and the undeveloped East.

<sup>11</sup> It might have been deemed appropriate to open the discussion of occupational structure with some attention to differences in the proportion of the total population gainfully occupied between different countries and at different times. On paper these often appear large. But upon closer inspection it will be found that the proportion of the total population in the labor force is largely a function of age distributions, and very marked differences reported in the occupational statistics are artifacts arising from differences in the extent to which youths and farm women are classified as "gainfully occupied." Cf. "A Comparison of the Gainfully Occupied Population by Sex and Age in the Various Countries of the World," *International Labour Review* 41(5): 541-550, May, 1940. The relation of age distributions to size of the labor force and the corresponding burdens of dependency have been discussed by the author and his colleagues in Notestein et al., *op. cit.*, Chapters V-VII.

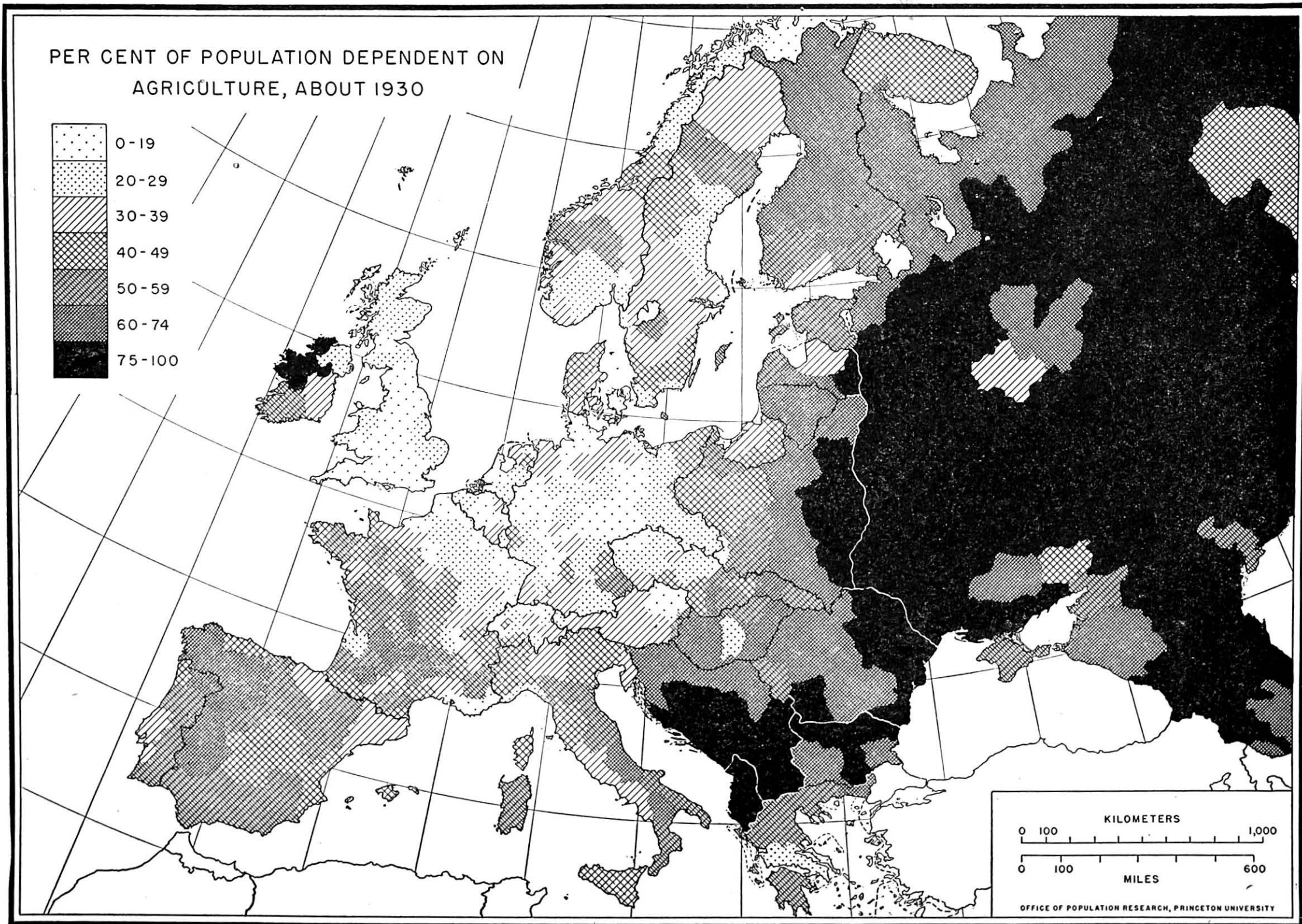


FIGURE 46. Per cent of population dependent on agriculture in Europe, by minor divisions, about 1930.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

England, the homeland of the industrial revolution, still supports a prosperous agriculture but industry and commerce have long since absorbed the talents of all but a tiny minority of her people. In England the peasant has disappeared. Only in East Anglia with its especially favorable conditions for agriculture, and in the more isolated and hilly sections of Wales and Scotland, has farming continued as a source of employment to a large section of the people. In Ireland, of course, the peasant still holds his own, though he has retreated into the western and less favorable fringes of the island.

Predominantly agricultural regions remain in every continental country, but in Industrial Europe these have shrunk into such regions as the forested Ardennes and neighboring Eifel, into the sandy lowlands of the Northern Netherlands and Oldenburg. In the Low Countries and Switzerland there remain no large districts in which more than half of the population continue to be employed in agriculture. In Germany predominantly agricultural regions have persisted only in the peripheries, notably in the poor soils of the North German plain, in the East, and in eastern Bavaria. In Austria, as in Bavaria, agriculture continues to maintain an important place in the occupations of the people outside the city of Vienna. But in the western parts of Czechoslovakia, in Bohemia and Moravia, agriculture remains the occupation of only a modest minority except in the Southern Bohemian forest regions.

Likewise, in most of Scandinavia agriculture is no longer the predominant source of subsistence for the population. In Denmark, widely known as an agricultural country, less than a third of the population derive their living from the land, and even in predominantly rural regions (i.e., in Jutland) less than half the population is directly dependent on agriculture for subsistence. In Norway and Sweden there are districts with a majority of farmers in the population, but as in Denmark less than a third of the total populations work directly on the land. In the thinly settled North the proportion in agriculture is determined by the importance of alternative occupations in forestry, fishing, and mining. Where, as in Northern Norway, climatic conditions preclude remunerative agriculture, the sparse population is almost entirely non-agricultural.

Though by no means impervious to the influences of industrialization, Latin countries have clung to agriculture much more tenaciously than Northern Europe in the face of comparable opportunities. Religion and an old tradition of cultural ascendancy in the Southern countries have buttressed the universal resistances to change found everywhere. France, of course, has been heavily industrialized in the North and Northeast. But there is a marked regionalism in industrial development. South and west of a line drawn across the country from Havre to Geneva, France is still a predominantly rural country; north and east of this line the population is overwhelmingly non-agricultural (though, of course, the region supports a prosperous agriculture in which a minority of the people are engaged). The Rhone Valley has been an avenue of commerce and industry cutting through to the Mediterranean. Here also, and along the Mediterranean littoral, agriculture is no longer the principal support of the population. But much of the West and Southwest is as agricultural as Eastern Europe, though the peasant regions are broken by the urban islands of such cities as Bordeaux, Toulouse, Nantes, and Tours.

Influences from across the Alps are reflected in the large industrial populations of Northern Italy but these are almost matched by the extremely dense agricultural population of the Po Valley. Owing to this factor Northern Italy does not appear much more industrialized than Central and Southern Italy, though most Italian industry is located in this region. In general the peoples of the Adriatic slope of the Italian peninsula are more dependent on agriculture than those of the western slopes despite the fact that the latter are more favorable to agricul-

ture. The occupational distribution of the western slope is much influenced by the presence of Naples and Rome, the former long an administrative and commercial center of importance, the latter the political capital of modern Italy.

The Iberian peninsula remains an agricultural region, though on the peripheries industry and trade have gained a foothold. In Catalonia and the Basque regions, and even along the Mediterranean coast to Valencia, non-agricultural pursuits now occupy more than half of the population. Beachheads of modernization have also been won in the major port areas of both Spain and Portugal, but aside from the city and province of Madrid the center of the peninsula remains predominantly agricultural.<sup>12</sup>

With minor exceptions (e.g., Greece) Eastern Europe is an enormous area that only very recently emerged from almost complete dependence on agriculture as a means of livelihood. There have long been cities in Eastern Europe, but these have characteristically been only pinpoint islands in a great sea of peasantry. Only on the western fringes was there a widely dispersed non-agricultural population. In the Baltic coasts of the old Russian Empire, in the textile districts of western Poland, in the districts of rural industries in Slovakia and Transylvania, the old peasant economy had given some ground. But further east agriculture occupied not less than four-fifths of the population. In the middle of the interwar period Eastern Europe was still overwhelmingly agricultural.

Nevertheless, in most countries agriculture was giving way before the advance of other employments. On the western edges non-agricultural employments were gaining along a continuous frontier of advance. In the more remote regions of Russia the bridgeheads of progress grounded in the old cities and in embryonic industrial developments were expanding into full-blown industrial regions like those of Moscow, the Donetz basin, and the Urals. Accelerated by the drive of the Communist Revolution the forces of modernization were eating away rapidly at the greatest mass of peasantry remaining in Europe, the Russian *moujik*. Even when he remained on the soil (and more than half of the Russian people were still on the soil even in 1939) the Russian peasant was becoming an appendage of the new urban economy.

Historically the trend in Europe from agriculture to other employments has been unmistakable. In the middle of the interwar period non-agricultural employment had risen to include half the population of Europe, even counting in the heavily rural population of European Russia. It was clear that this proportion would increase.

### *The Non-Agricultural Occupations*

What is not so clear is the process of development in the non-agricultural occupations. The transition has not been simply a movement from agriculture to industry, and the relative attractiveness of different occupations appears to have undergone important changes in the progressive phases of "industrialization." Accompanying changes in occupation and in the relative proportions of the working population employed in the different branches of economic activity there have been equally important modifications in the social status of the working force. In the discussion that follows attention will first be directed to the general occupational shifts that appear to accompany progressive economic development and, second, to the changes in economic status that these occupational changes imply.

Two avenues of approach are available for purposes of analyzing the occupational changes accompanying economic development; one the study of historical development within countries

<sup>12</sup> The apparent enclave of area with lower dependency on agriculture in central Spain (cf. Figure 46) is an artifact arising from the fact that data were available only by major regions. The inclusion of Madrid in this region (New Castile) reduces the apparent proportions of the population in agriculture over a much wider area than would be the case if data had been available and had been plotted for the smaller provinces.

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now industrialized, and the other the comparative study of different countries now at various stages of economic development. Neither is entirely satisfactory owing to the poor quality of source data relative to occupation.

### *1. Historical Survey.*

The historical approach to an understanding of occupational shifts is severely limited by the fact that few countries have comparable series of occupational statistics extending over any considerable period of time. Territorial changes, difficulties of definition, and incessant revision of classificatory schemes eliminate the possibility of determining coherent trends except for a few countries where particular efforts have been made to achieve intercensal comparability. Among the larger industrial nations France and Germany offer the best data.

For France there exists a series of workable comparability back to 1866. Though the influence of territorial changes is not taken into account these changes have had relatively little effect on the occupational distributions since they involved less than five per cent of the working population.

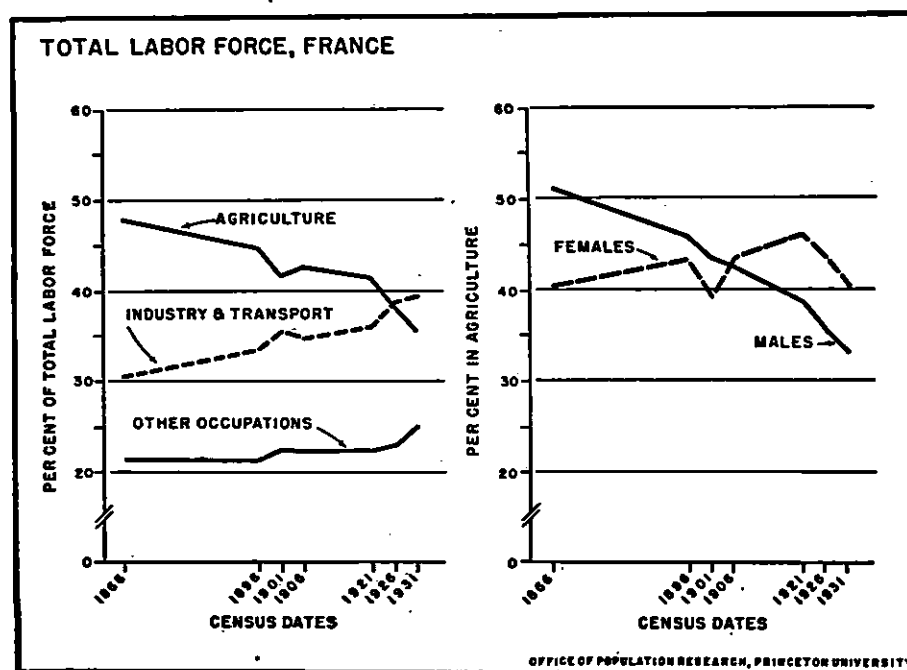


FIGURE 47. Per cent of the total labor force in major occupational groups and per cent of total male and total female labor forces reported as engaged in agriculture, France, 1866-1931.

The modern economic development of France commenced at an early date, but it has proceeded at a slower pace than in most other countries. Large parts of France remain agricultural and maintain much of their old peasant aspects. These are reflected in the relatively gradual changes in occupational distribution.

The drift from agricultural to non-agricultural occupations is shown in Figure 47. In 1866 almost half of the working population were employed in agriculture. Since that time there has been a slow but persistent decrease in the proportion of the working force so engaged.<sup>18</sup> The true decline was actually somewhat sharper than that indicated by the statistics for the total working force of both sexes. In France, as in other European countries, there was a growing

<sup>18</sup> The departure from general trends suggested by the data for 1901 is almost certainly a statistical artifact arising from the different census procedures applied in that year.

tendency to report farm wives as gainfully occupied in agriculture, though continuing to report other "housewives" as dependent members of the family. In consequence, by change of definition, the apparent number of women gainfully occupied in agriculture (and in all occupations) has shown different trends from those of males. As may be observed in the right-hand panel of Figure 47 the proportion of the total gainfully occupied males engaged in French agriculture has declined more rapidly than that for both sexes, and the decline has consistently accelerated. By contrast the proportion of all "gainfully occupied" females reported to be in agriculture actually increased to 1921 and fell off only during the interwar period. It may be assumed that the trends for males is a much more accurate description of the actual changes than either those reported for females or for the total working force of both sexes. The proportion of the French population dependent on agriculture has declined steadily and probably at an accelerating rate, and there has been an absolute decline in the number of French farmers since the turn of the century, reflected, as all Frenchmen know, in the deserted villages to be found in the rural districts of the nation.

The predominant form of non-agricultural employment in France is industry and transport. These occupations have attracted a growing number of persons since 1866 and in the interwar period they became of greater numerical importance than agriculture as a means of subsistence. However, the proportion of industrial and transport workers in the *non*-agricultural working population has not significantly increased; in fact, it has remained almost constant at around three-fifths (Figure 48). Industry and transport gained relative to agriculture but remained about constant relative to other non-agricultural pursuits. Commerce, on the other hand, has gained steadily, not only relatively to agricultural but also to other employments. While the total French working force increased 43 per cent between 1866 and 1931,<sup>14</sup> that in commerce almost tripled. Similarly, the liberal professions and public administration have also gained relatively to industry, though not quite as rapidly as commerce.

Among non-agricultural occupations two important groups lost ground: domestic service and the army. In 1866 about 16 per cent of the non-agricultural labor force was employed in domestic service, but by 1931 it was scarcely a third of this proportion. Domestic service has been a declining profession both in relative and in absolute terms. The size of the army has fluctuated with political conditions, but in general it was larger before World War I than in the interwar period. Owing to this fact and to the growing importance of other occupations the army has been a shrinking part of the total non-agricultural labor force.

Important differences exist in the occupational shifts observable in the male and female labor forces (Figure 48). Male workers are more heavily concentrated in industry and transport than are female workers, and the proportion was higher in the interwar period than previously, owing partially to the immigration of large numbers of foreigners and their employment in the industries of the North. Though commerce has assumed greater importance the expansion in this occupation among male workers has been much less than in the total working force. In the female working force, on the other hand, industry and transport have been less attractive in the interwar period. The gains of commerce, of public administration, and of the liberal professions in the total labor force largely reflect the rapid expansion of female employment in these occupations. Between 1866 and 1931, the number of females employed in commerce multiplied about five times and those in public administration about seven times.

<sup>14</sup> Some of the gain being attributable to the inclusion of larger numbers of farm wives in the statistics despite no real change in occupation.

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These and similar observations have commonly led to the conclusion that women have played an increasingly active role in the economy of France (and of Europe), but this conclusion is not entirely borne out by the relative proportions of women in the labor force. Though women have been a rising percentage of the recorded labor force, it may be noted that this increase is almost entirely a function of the growing tendency before World War I to report farm wives as gainfully employed in agriculture without any real change in the work responsibility of farm women. When the comparison is restricted to non-agricultural employments, the proportion of females in the labor force is seen to have risen slightly before the war but actually to have declined in the interwar period.

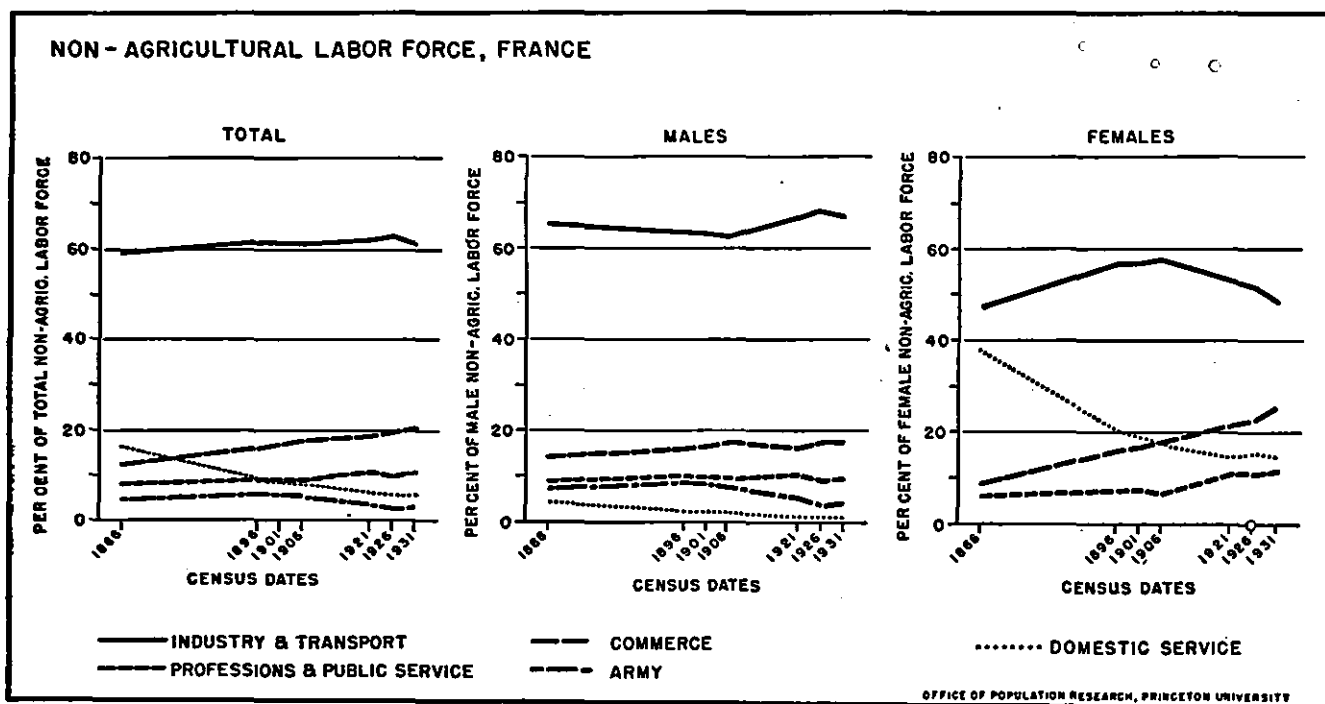


FIGURE 48. Per cent of total, male, and female non-agricultural labor forces in various branches of economic activity, France, 1866-1931.

It is nevertheless true that women have participated more actively in occupations outside the home. In 1866, three-eighths of the women employed in non-agricultural occupations were engaged in domestic service. In the earlier stages of industrialization there appears to have been a large movement of women from domestic service, chiefly to industry. This movement has probably continued, but the relative importance of industrial occupations has not increased because industry was in turn losing to commerce, public administration, and the liberal professions, which offer larger opportunities for clerical and other "white-collar" employments to women.

Historical shifts in the occupational structure of Germany parallel those of France though they occurred in a more developed and more rapidly expanding economy. The historical expansion of the German working force and the relative changes occurring in occupational distribution are shown in Figure 49. The data refer to the population within the territory of 1933 for all dates, so the observed changes are independent of territorial changes.

In the 57-year period under consideration, the German labor force more than doubled, but almost all of the increase was absorbed in non-agricultural pursuits despite the fact that, as in France, the apparent proportion of the working force in agriculture was progressively inflated

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by an increasing tendency to report farm wives as gainfully employed in agriculture. When comparison is made between the total agricultural and non-agricultural populations (i.e., both workers and dependents) this element of bias is eliminated. Between 1882 and 1933 the agricultural population declined from 15.9 to 13.7 million despite rapid growth in the total population. In percentage terms it has been cut almost in half from two-fifths to about one-fifth of the total.

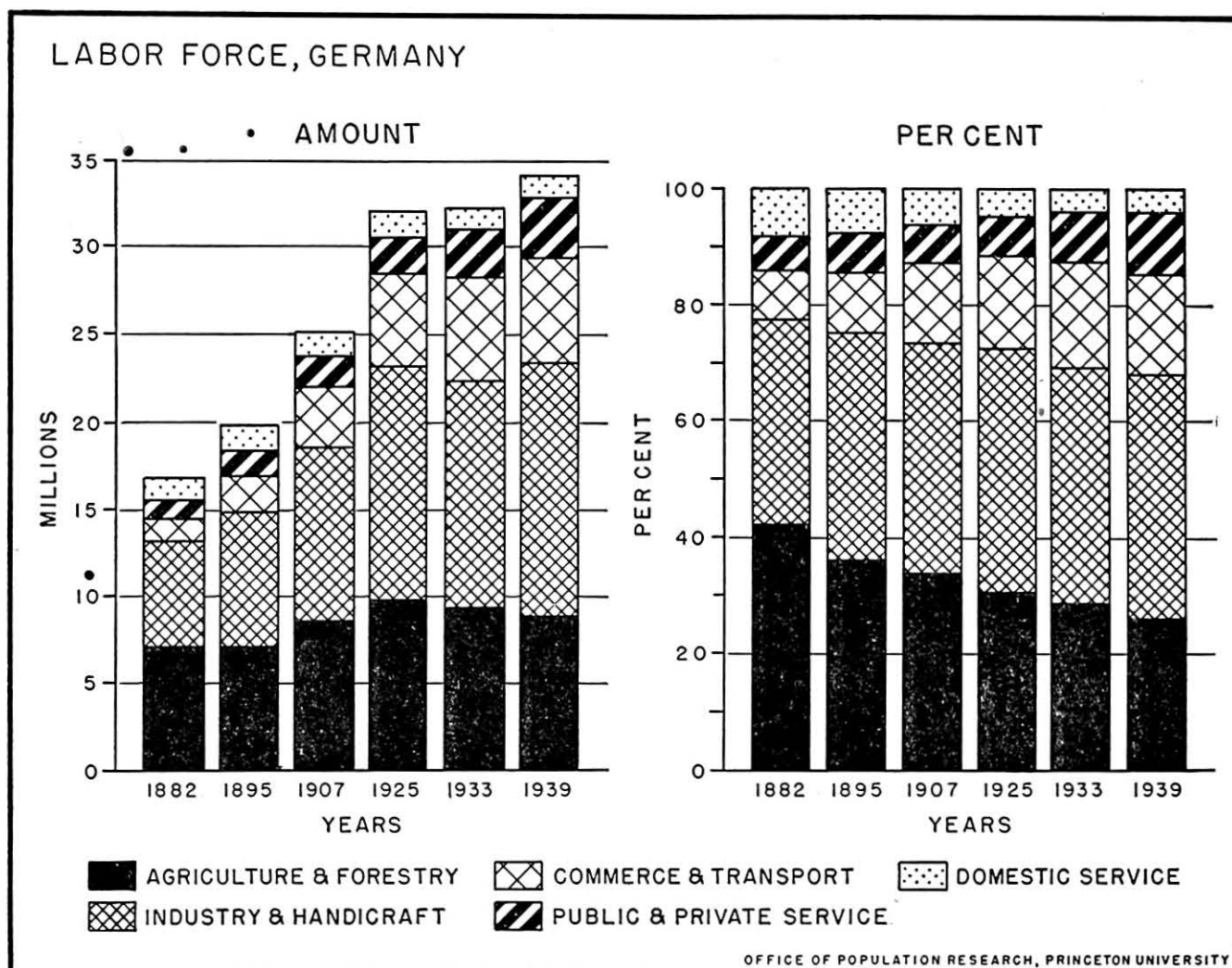


FIGURE 49. Distribution of the labor force among the main branches of economic activity, Germany, 1882-1939 (territory of 1937).

As in France, industry is the chief employment of the non-agricultural population and historically it has remained a rather constant proportion of the total (Figure 50). Before the First World War industry occupied about three-fifths of the non-agricultural population, there being a slight tendency for this proportion to decline. After the war there was a slight increase deriving chiefly from the reduction of the army and hence the category of public and private service in which the military forces are classified. The depression of the 'thirties bore especially heavily on industry so that there was even an absolute decrease in the number employed in industry and a considerable percentage decline in industry's proportion of the total non-agricultural population between 1925 and 1933. Under the impetus of rearmament, industry again



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gained sharply in numbers during the Nazi period, but owing to especially rapid increases in the service occupations industry did not regain its earlier position.

Despite differences in the French and German systems of classification it is apparent that the shifts occurring in other branches of the economy are basically similar. In Germany, as in France, commerce has been a rapidly expanding sector of the economy, even relative to other non-agricultural occupations.<sup>15</sup> Trends in public and private service have been mixed, owing to the inclusion of the army in this category. Thus the decline from 1907 to 1925 is clearly a function of demilitarization: sharp increases in later periods reflect both remilitarization and the proliferation of the governmental hierarchy associated with the introduction of a totalitarian regime. Underlying these fluctuations there appears to have been some basic upward

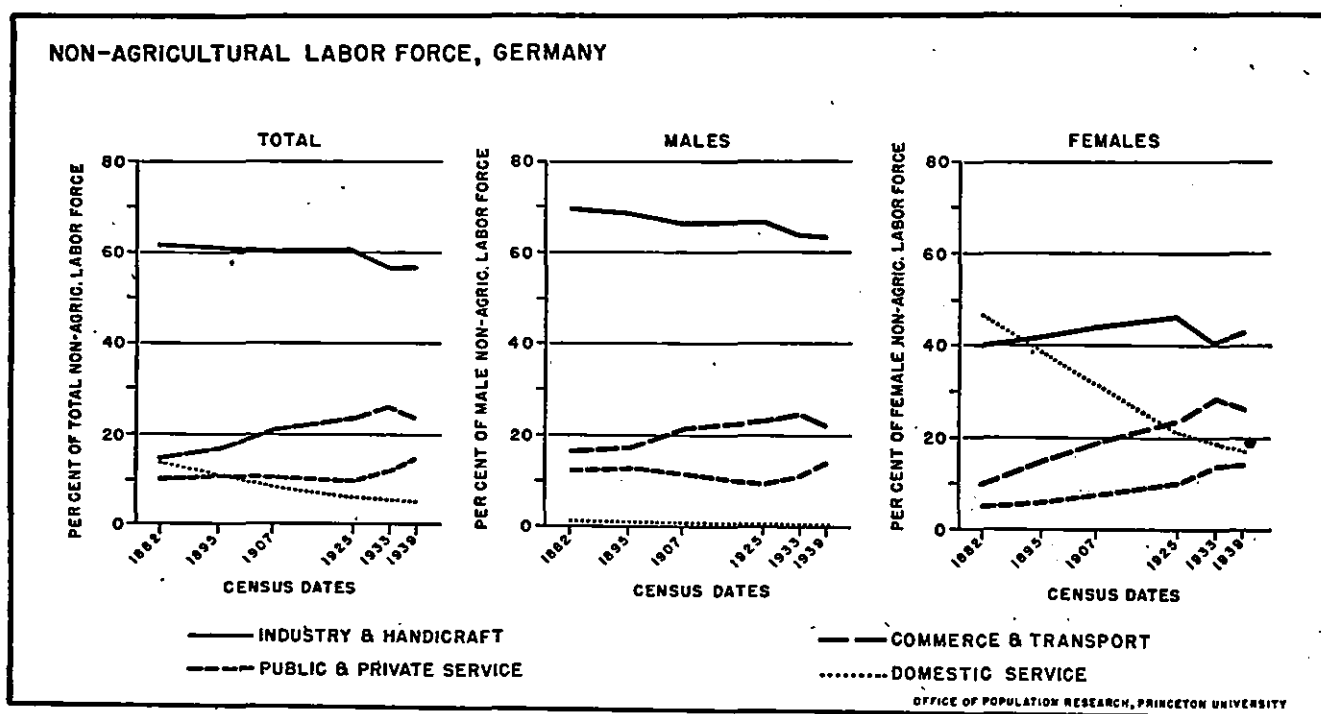


FIGURE 50. Per cent of total, male, and female non-agricultural labor forces in various branches of economic activity, Germany, 1882-1939 (territory of 1937).

trend in the service occupations reflected, for example, in the rising proportion of the female labor force engaged in these occupations. Finally, domestic service, as in France, has been steadily losing ground.

The distribution of the German male and female labor forces among the several major occupational groups reveals significant differences (Figure 50). The downward trend in the proportion of the male labor force (outside of agriculture) occupied in industry is much clearer than in the total labor force. The proportion of industrial workers in the female non-agricultural labor force rose until 1925 and subsequently reacted more sharply, first to depression, and secondly to the demands of the Nazi rearmament program. As in France, commerce has been particularly attractive to both men and women, but especially to the latter. The increase in the proportion of the labor force occupied in public and private service is, also as in France, chiefly the result of greater employment of women in these occupations.

<sup>15</sup> In the German classification scheme transport is classified with commerce, in the French with industry.

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Women have supplied a growing proportion of the total German force listed in the German census, but as in other countries this is chiefly a function of practice affecting the inclusion of farm women in the active labor force. In 1882 only about thirty per cent of the agricultural labor force was reported to be female; in 1939 the proportion had doubled to about sixty per cent (i.e., there were far more females than males reported in the agricultural labor force). When the comparison is restricted to non-agricultural occupations the proportion of females in the labor force has risen much less, except in the Nazi years, when employment opportunities brought many women from homes into industrial and office work. Of course within the female labor force there have been major shifts from domestic labor to outside employment, especially in commerce and in the service occupations.

The historical experience of France and Germany, and of other European countries with coherent statistical series over any considerable time span, suggests a rather uniform pattern of development in the major occupational groups. As agriculture has given way to non-agricultural activities there has been a general movement into industry, commerce, and the services. Though industry has absorbed the bulk of those leaving agriculture, the services and especially commerce have shown more rapid development. Domestic service has been a common transitional occupation for women leaving agriculture but has declined very much in relative importance in the past fifty years.

### *2. Comparative Survey.*

The comparative study of countries at different stages of economic development does not yield any such consistent pattern as the historical approach. It might be supposed that the historical developments noted above might be reflected in observed differences between highly industrialized and agrarian countries in contemporary Europe. Such is not the case except as regards the general trend from agricultural to other occupations.

The distribution of the non-agricultural labor force reported for European countries (Table 13) does not reveal any consistent progression of development from the undeveloped to the industrialized countries. In the table, the several countries are grouped according to an ascending order of dependence on agriculture. There are three major groups, the first including countries with less than a third of the population dependent on agriculture (without forestry and fishing), the second including those with one-third to two-thirds dependent on agriculture, and the final group comprising those with two-thirds or more relying directly on the land for subsistence. Within these three major groups are subclassifications based to some extent on the relative degree of dependence on agriculture but also with some attention to geographical continuity. Great Britain, with less than ten per cent of its population dependent on farming, leads the list. The next group includes those with less than a fourth living directly on the land, while the remaining countries in Group I, all having between a fourth and a third of their populations dependent on agriculture, are grouped geographically. The countries of Group II are similarly organized, while those of Group III, owing to their small number, are not differentiated.

It must be emphasized that occupational data are only in the roughest way comparable from country to country. There are two major systems of classification, one relating to the branch of industry in which a person is employed, the other to the actual occupation followed regardless of the nature of the enterprise. Differences in the results arising from the application of

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TABLE 13

 Per Cent of Population Dependent on Agriculture and Percentage Distribution  
 of the Non-Agricultural Working Force about 1930

Country	Census Classifications <sup>1</sup>	Date	% of Population Dependent on Agriculture	% of Non-Agricultural Labor Force <sup>2</sup> Engaged in					Total
				Mines & Industry	Transport & Communications	Commerce	Private Service	Public Service & Liberal Professions	
England and Wales	I	1931	*5	49	8	17	15	11	100
Belgium	O	1930	*15	58	8	14	9	10	100
Netherlands	I	1930	*18	49	10	18	13	11	100
Germany	I	1933	20	57	7	16	11	10	100
Switzerland	I	1930	22	57	6	13	15	9	100
Austria	I	1934	26	54	7	14	12	13	100
France	I	1931	*28	54	8	17	10	11	100
Czechoslovakia	I	1930	33	60	7	10	10	12	100
West-Central Region	—	—	23	56	7	15	11	11	100
Norway	O	1930	*27	41	14	17	18	9	100
Denmark	O	1930	30	43	9	17	22	9	100
Sweden	I	1930	31	51	10	14	14	10	100
Scandinavia	—	—	30	46	11	16	17	10	100
Group I (less than 1/3 Dependent on Agriculture)	—	—	20	54	8	16	12	11	100
Italy	I	1936	*44	57	7	17	7	12	100
Spain	I	1930	*50	59	6	11	9	15	100
Portugal	I	1930	*46	45	7	13	24	12	100
Greece	O	1928	*50	46	11	17	12	13	100
Mediterranean Area	—	—	46	56	7	15	9	13	100
Hungary	O	1930	51	50	7	13	17	14	100
Ireland	I	1936	*53	32	8	21	20	19	100
Latvia	I	1935	*55	46	7	18	9	21	100
Estonia	O	1934	56	49	8	12	12	20	100
Finland	O	1930	60	51	11	14	11	13	100
Poland	O	1931	60	51	7	13	14	15	100
Lithuania	O	1923	*65-70	41	5	11	28	15	100
Other Semi-Industrial Countries	—	—	58	49	7	14	15	15	100
Group II (1/3-2/3 Dependent on Agriculture)	—	—	51	54	7	14	11	14	100
Rumania	O	1930	72	36	9	16	16	23	100
Bulgaria	O	1934	75	46	7	13	12	23	100
Yugoslavia	I	1931	76	54	8	13	2	23	100
Group III (over 2/3 Dependent on Agriculture)	—	—	74	44	8	15	11	23	100
Total	—	—	36	53	8	15	12	12	100

For footnotes see page 201.

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these two systems are by no means inconsequential.<sup>16</sup> Aside from the major basis of classification employed, there exist innumerable differences in detail flowing both from matters of definition and of classification. As noted above there are the widest differences regarding the inclusion of family workers, especially of women, in the "gainfully occupied" population. Thus at the two extremes only 9.4 per cent of females were classified as gainfully occupied in the Spanish census of 1920, while in the 1923 census of Lithuania the "comparable" figure is 67.5<sup>17</sup> Such differences obviously do not arise exclusively from true differences in the employment of women, but reflect the vagaries of census practice in the respective countries. This variation in census procedure affects not only the reported size of the labor force but also its distribution, especially as regards those activities such as agriculture, handicraft, and commerce in which family assistance customarily plays an important role.<sup>18</sup>

Differences in classification are quite as troublesome as those regarding the definition of the gainfully occupied population. The lines between the major groups employed are commonly nebulous, with a large proportion of occupations that can with some justice be placed in either of two (or more) categories. Thus in European countries hotels are variously classified as "Industry," as "Transport," as "Commerce," and as "Personal Services" depending on the judgment of those administering the respective censuses. Such examples could be multiplied many times over. Of the non-agricultural occupations industry is generally the most clearly defined. The services, and especially domestic service, are particularly subject to variations of definition.

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\* Approximate figures. In these countries the number of persons dependent on agriculture was not reported in the census. The per cents given were derived from the per cent of gainfully occupied males engaged in agriculture on the basis of the relationship between the two figures in countries having both types of data. See Appendix II.

<sup>1</sup> Industrial (I) or occupational (O) census classifications.

<sup>2</sup> In computing the percentages given, the classifications of non-agricultural labor force in the respective census publications were rearranged where possible to conform with the classification plan recommended by the Committee of Statistical Experts of the League of Nations in *Statistics of the Gainfully-Occupied Population*, Studies and Reports on Statistical Methods, No. 1, League of Nations, Geneva, 1938. As the result of widely divergent census practices it is impossible to attain complete comparability; international comparisons should therefore be made with great caution. The figures are rounded to the nearest full per cent and hence do not always add exactly to 100.

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<sup>16</sup> Thus according to strict definition a clerk employed in the office of an automobile manufacturing concern will be classified in the industrial scheme under "Manufacturing," in the occupational scheme as a "Clerk." In actual practice neither plan is rigidly adhered to and most censuses are a mixture of the two systems. The extent of variability that may occur through the attempted application of the two different criteria is nevertheless large, as illustrated by the data for countries which have used both in the same census. An example of how great the differences may be is given by the results of the 1931 census of England and Wales according to the two systems:

Classification	Per Cent Distribution of the Working Population According to	
	Occupation	Industry
Agriculture, Forestry, and Fishing	6.4	5.6
Mining and Quarrying	5.1	6.0
Industry	31.7	40.2
Trade	14.3	19.0
Transport	8.7	7.9
Army, Navy	1.0	1.3
Public Administration	0.6	5.5
Liberal Professions	4.6	4.1
Clerks	7.3	—
Domestic Service, etc.	11.5	9.6
Other and Unspecified	8.8	0.8
	100.0	100.0

<sup>17</sup> Cf. "A Comparison of the Gainfully Occupied Population by Sex and Age in the Various Countries of the World," *International Labour Review* 41(5): 541-550, May, 1940.

<sup>18</sup> Other differences in the delimitation of the labor force also weaken comparability: e.g., the inclusion or exclusion of children and of the unemployed.

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Perhaps owing to these numerous difficulties, little pattern emerges from an international comparison of the distribution of non-agricultural employments. Contrary to what might be expected there appear to be higher proportions of the non-agricultural labor force in the public and private services in the more primitive economies. This arises from the fact that domestic service and the army play a greater role in such economies than they do in those with large non-agricultural populations. Furthermore even an agricultural state requires a large staff of functionaries who may form a high percentage of the non-agricultural labor force in the absence of a large industrial and commercial population. Finally, certain professional categories, such as the law and the church, may be as large in a primitive as in a developed economy.

Aside from these rather sweeping observations, the existing statistics on professions do not provide a sound basis for generalizations regarding differences in the occupational structure of the non-agricultural population as between economically developed and economically undeveloped countries.<sup>19</sup>

### *Occupational Status*

Historically, there has been an unmistakable trend from the status of independent worker (e.g., as a peasant cultivator) to that of wage-earner. As is everywhere evident there has been a growing size of enterprise in many branches of the economy and especially in those branches (e.g., industry) that have gained the bulk of the labor force attracted away from agriculture. Inevitably the entrepreneur and the independent worker have become a smaller proportion, the wage-earner a growing proportion, of the total labor force.

Occupational statistics customarily distinguish four types of status: (1) Employers and independent workers, (2) Salaried employees, (3) Wage-earners, and (4) Unpaid family workers. The fourth category is frequently omitted and is subject to such variable definition that statistics relating to it are unusable for purposes of international comparison. Hence the tables and discussion below are confined to the first three categories.

The class "Employers and independent workers" brings together strange bedfellows. It includes the self-sufficient peasant, the commercial farmer, the factory manager, the business executive, and finally the moguls of finance and industry. They have in common an element of freedom in the management of their occupations denied the man who works at the orders of another. In practice the group is more homogeneous than would be indicated by the extremes of its composition. Numerically the family operator, whether peasant, craftsman, or tradesman, is in overwhelming predominance. Differences in the size of this group therefore chiefly reflect differences in the number of small enterprises in agriculture, handicraft, and commerce.

"Salaried employees" are distinguished technically from wage-earners in their manner of compensation, but in actual practice the distinction is chiefly one of "white-collar" employment as opposed to manual labor. Procedure varies as to the inclusion or exclusion of managerial staff in this group, but the numerical effects of such divergence are relatively unimportant,

<sup>19</sup> Though within the subgroups plausible differences do appear. Thus the relatively high proportion of the Belgian labor force in industry relative to the Netherlands, and the relatively high proportion in transport in the latter country, is a reasonable contrast. The high proportions engaged in transport and commerce among the Scandinavian countries seem understandable in view of the difficulties of internal communication and the large shipping interests of these countries. The position of Greece in this regard vis-à-vis the other Mediterranean countries seems plausible in view of the large shipping and commercial interests of that country relative to its industry. However, these relationships appear to be restricted to particular subgroups and do not result in any over-all pattern.

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owing to the small numbers normally engaged in managerial capacities as compared with the total clerical and office staffs.

The distribution of the labor force among these three groups for those countries with usable statistics appear in Table 14. The countries are arranged as above in regional groups roughly in ascending order of the proportion of their populations dependent on agriculture. Thus the countries follow in sequence from Great Britain, with less than ten per cent of its people agricultural, to Yugoslavia, with three-fourths of its population living on the land.

TABLE 14  
Occupational Status of the Gainfully Occupied Population

Country	Date	% Distribution of Labor Force			Total
		Employers and Independent Workers	Salaried Employees	Wage-Earners	
Great Britain	1931	13	— 87 —	100	
Belgium <sup>1</sup>	1930	26	10	63	100
Netherlands <sup>1</sup>	1930	23	— 77 —	100	
Germany	1933	20	20	60	100
Switzerland	1930	22	16	62	100
Austria	1934	23	16	60	100
Czechoslovakia	1930	25	16	59	100
West-Central Region	—	21	— 79 —	100	
Sweden	1930	21	10	69	100
Norway	1930	28	14	59	100
Denmark	1930	31	14	55	100
Scandinavia	—	25	12	63	100
Group I (Industrial Countries)	—	19	— 81 —	100	
Italy	1936	34	10	56	100
Greece	1928	58	8	34	100
Mediterranean Region	—	37	10	53	100
Hungary	1930	32	8	60	100
Ireland	1936	34	— 66 —	100	
Latvia	1935	41	— 59 —	100	
Estonia	1934	42	9	49	100
Poland	1931	48	7	45	100
Lithuania	1923	47	6	47	100
Other Semi-Industrial Countries	—	43	— 57 —	100	
Group II (Semi-Industrial)	—	40	— 60 —	100	
Bulgaria	1934	63	7	31	100
Yugoslavia	1931	59	8	33	100
Group III (Agricultural)	—	60	8	32	100
Total	—	28	— 72 —	100	

<sup>1</sup> Excluding public and private services which customarily have low proportions of employers and independent workers, high proportions of salaried employees and wage-earners.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

Though definitional problems impair precise comparison there is a clear and entirely understandable progression from low to high proportions of employers and independent workers associated with increasing dependence on agriculture. In Great Britain only 13 per cent of the working force are classified as employers or independent workers. Among the industrial countries of Group I the proportion is about one-fifth. In the semi-industrialized countries of the second group the figure ranges from a third to a half, while in the undeveloped economies of Southeastern Europe about three-fifths of the labor force remain workers on their own account. Conversely, the proportion of salaried employees and wage-earners is lowest in the peasant countries, highest in the countries where rationalization and industrialization have proceeded the furthest.

Economic development in Europe clearly implies a great shift in the labor force from independent to wage-earning status. This shift is obviously correlated to the desertion of agriculture for other occupations. In most agricultural countries the family operator is the typical economic unit. Even in countries with predominantly estate agriculture, such as Hungary, a large part of the agricultural labor force consists of independent workers on their own or on leased land.<sup>20</sup> On the other hand, in every European country the proportion of independent workers in other employments is lower than in agriculture. Therefore the occupational shifts involved in industrialization bring about important changes in occupational status.

Supplementing the influence of occupational shifts (and of equal importance) are the organizational changes occurring within each major branch of activity as the economy develops. It may be noted from Table 15 that not only do the less developed economies have a higher proportion of independent workers in the total labor force but, aside from the services, a higher proportion in *all* the major branches of the economy. In countries of highly rationalized farming, such as Great Britain, Denmark, and Sweden, the independent worker is heavily outnumbered even in agriculture. At the other extreme, in almost wholly peasant Bulgaria, 84 per cent of the agricultural labor force consists of operators working on their own account.

In the mining and industry of the major industrial countries the independent worker or operator has become a small minority. The proportion is directly related to the extent to which handicraft has survived, since the employer group in modern mass production industry is only a tiny fraction of the total labor force employed.<sup>21</sup> In the undeveloped countries, on the fringe of the European money economy, the independent artisan is still an important element in the labor force. In these countries he forms up to a third of the labor force classified in industry.

Transport and communication are, on the average, even more fully rationalized than industry. Hence the proportion of employers and independent workers is generally even smaller. Unfortunately international comparability is seriously impaired in some instances by differences in occupational classification, but it is apparent that in transport, as in industry, the proportion of employers and independent workers falls with advancing industrialization.

Commerce is the major refuge of the independent worker in the modern urban economy. Trade and distribution have yielded far less to the efficiencies of modern technology than have industry and transportation, and in this field the individual owner-operator has been much more successful in maintaining his position in competition with larger enterprises. Nevertheless, even here there is evidence of retreat. Though the progression is irregular it is apparent that

<sup>20</sup> Classification is often rendered difficult by the fact that peasant proprietors in such countries supplement their income from their own small plots by working on large estates for wages during certain seasons of the year.

<sup>21</sup> This is especially true of industries requiring considerable capital and large-scale enterprise for successful operation, such as mining of heavy metals and coal. Thus in Austria there were reported only 47 employers and independent workers in a total labor force of 22,841. In Hungary there were 30 employers and independent workers in mining and blast furnaces out of a total labor force of 35,182. In the mining and quarrying industries of Great Britain there were only 8,096 employers, etc. out of a total staff of 1,281,072.

TABLE 15

Occupational Status of the Gainfully Occupied Population in Each Branch  
of Economic Activity about 1930

Country and Census Date	Per Cent of Each Occupational Group Who Were																			
	Employers & Independent Workers					Salaried Employees					Wage-Earners					Totals, Excluding Family Workers				
	Agric.	Mining & Industry	Transp.	Commerce	Serv.	Agric.	Mining & Industry	Transp.	Commerce	Serv.	Agric.	Mining & Industry	Transp.	Commerce	Serv.	Agric.	Mining & Industry	Transp.	Commerce	Serv.
Great Britain '31	32	8	7	28	9	a	a	a	a	a	a	a	a	a	a	100	100	100	100	100
Belgium '30	67	11	8	59	—	0	5	25	30	—	33	83	67	12	—	100	100	100	100	—
Netherlands '30	41	14	20	39	—	a	a	a	a	—	a	a	a	a	—	100	100	100	100	—
Germany '33	45	12	4	31	13	2	10	41	44	65	52	78	55	26	22	100	100	100	100	100
Switzerland '30	47	16	5	27	21	1	10	36	37	64	52	74	59	36	15	100	100	100	100	100
Austria '34	45	16	7	35	11	2	10	30	36	56	54	74	64	29	33	100	100	100	100	100
Czechoslovakia '30	53	12	6	40	6	2	10	20	39	58	45	78	74	22	36	100	100	100	100	—
Sweden '30	38	12	8	27	—	1	6	16	21	—	61	82	77	52	—	100	100	100	100	—
Norway '30	52	17	9	29	9	1	6	26	46	61	47	77	66	25	30	100	100	100	100	100
Denmark '30	38	23	24	34	51	4	8	34	46	38	58	69	42	20	11	100	100	100	100	100
Group I (all) 8 Countries <sup>b</sup>	45	11	7	32	11 <sup>d</sup>	—	—	—	—	—	—	—	—	—	—	100	100	100	100	100 <sup>d</sup>
	46	13	6	34	13 <sup>d</sup>	2	10	34	40	62 <sup>d</sup>	51	78	60	26	25 <sup>d</sup>	100	100	100	100	100 <sup>d</sup>
Italy '36	54	19	23	56	10	0	5	18	27	61	46	76	59	17	29	100	100	100	100	100
Greece '28	86	39	34	67	22	2	1	17	15	72	13	60	49	18	6	100	100	100	100	100
Hungary '30	47	24	8	39	8	0	5	19	27	52	53	71	73	34	39	100	100	100	100	100
Ireland '36	65	17	7	36	8	a	a	a	a	a	a	a	a	a	a	100	100	100	100	100
Latvia '35	59	30	18	43	8	a	a	a	a	a	a	a	a	a	a	100	100	100	100	100
Estonia '34	61	29	15	41	—	1	5	24	22	—	38	65	61	37	—	100	100	100	100	—
Poland '31	69	27	14	62	14	1	4	20	12	53	30	69	66	26	33	100	100	100	100	100
Lithuania '23	52	37	11	69	9	0	2	26	13	81	48	61	63	18	11	100	100	100	100	100
Group II (all) 6 Countries <sup>c</sup>	61	23	19	56	11 <sup>d</sup>	—	—	—	—	—	—	—	—	—	—	100	100	100	100	100
	61	23	20	57	11 <sup>d</sup>	0	5	19	22	59 <sup>d</sup>	39	72	61	21	30 <sup>d</sup>	100	100	100	100	100
Bulgaria '34	84	29	27	56	15	0	2	17	24	37	16	69	56	20	48	100	100	100	100	100
Yugoslavia '31	78	32	14	44	6	0	4	50	16	57	21	64	36	39	37	100	100	100	100	100
Group III	80	31	18	48	10	0	3	40	19	49	20	65	42	33	41	100	100	100	100	100
Total 16 Countries <sup>b c</sup>	56	14	10	37	11 <sup>d</sup>	—	—	—	—	—	—	—	—	—	—	100	100	100	100	100
	58	16	11	40	12 <sup>d</sup>	1	8	30	35	60 <sup>d</sup>	41	76	60	25	28 <sup>d</sup>	100	100	100	100	100

<sup>a</sup> Figures not given separately for salaried employees and wage-earners.

<sup>b</sup> Excluding Great Britain and the Netherlands.

<sup>c</sup> Excluding Ireland and Latvia.

<sup>d</sup> Including only those countries for which data were available.



the petty tradesman operating on his own account plays a smaller role in the commerce of the industrial countries of the first group than in those of the second and third groups.

The given percentages of independent workers in the public and private services do not reveal any consistent regional pattern. International differences probably more closely correspond to the vagaries of census definition and classification in this grouping than they do to actual differences in occupational structure.

The combined percentages of employees and wage-earners naturally vary inversely to those of employees and independent workers. The lowest proportions of employees and wage-earners, both in the total labor force and in each major branch of economic activity (aside from public and private service), appear in the more agricultural countries, with progressively higher proportions as the countries become more industrialized.

For those countries which distinguish salaried employees from the general wage-earning class, however, interesting differences in these two groups appear. Both become a rising proportion of the labor force with increasing complexity of the economy, but the relative development of the two differs markedly within the several major branches of economic activity. The proportion of salaried workers is least in agriculture, low in primary industry, and progressively higher in those branches further removed from these activities. In agriculture only about one per cent of the labor force is classified as salaried employees. In industry and mining the average figure is eight per cent, rising to ten in some of the more industrialized countries. In transport the proportion increases to 30 per cent, in commerce to 35 per cent. Finally, in public and private service, salaried employees are a majority of the labor force in almost all countries. The salaried worker is the new middle class, and on the basis of past trends will greatly increase in importance in the future.

#### *Factors Affecting Occupational Structure and Change*

In the preceding discussion no attempt was made to go much beyond an examination of the facts. Given the facts it seems desirable to consider their more general causal relationship without presuming, however, to give an exhaustive or definitive review of these relationships.

The factors determining the presence of a high proportion of dependency on agriculture are essentially negative ones. There is certainly no positive correlation between the quality of the soil and the percentage of the population engaged in its cultivation. In fact, the proportion engaged in agriculture tends to be greatest precisely where conditions are least favorable to the profitable exercise of that profession. In the British Isles the highest proportions in agriculture are to be found in the hills of Scotland and the damp western shores of Ireland. In France the best grain regions of the North, and the fertile Rhone Valley, support only a minority of the populations in these regions, while the less fertile departments west of the Rhone are chiefly agricultural. No one would argue that in Germany the conditions were especially favorable where the proportion engaged in agriculture was high, as for instance, in Mecklenburg, in Pomerania, in East Prussia, and in Lower Bavaria-Upper Pfalz. In Italy the highest percentages in agriculture are found on the relatively barren Adriatic slopes and in the hilly South. There are lower proportions in the very fertile Po Valley and on the more fertile western slopes of the Apennines. Inhabitants of the Balkan mountains are almost entirely dependent on agriculture for subsistence despite the inferior quality of agricultural land in this region. Patently the higher proportion of agricultural population in these poorer areas is not owing to the attractiveness of agriculture itself but to the lack of opportunity to engage in other occupations. Agriculture is rarely an occupation engaged in from selection among several alternatives; in Europe the agricultural population remains such chiefly by virtue of tradition, inheritance, and

necessity. A high proportion of agricultural population, therefore, does not mean a profitable agriculture; it simply reflects the absence of industry and commerce. Industrialization is thus the dynamic factor in occupational distribution.

The development of non-agricultural occupations, what is commonly called "industrialization," has a pattern of geographical spread that arises from a very complicated mixture of historical, cultural, and economic factors. It is apparent that the division of Europe into an industrial West and agricultural East is not just a function of the distribution of natural resources. Certain countries such as Switzerland and the Netherlands are seriously lacking in the natural resources commonly regarded as essential to the development of an industrial economy, yet these are among the most industrial countries of the world. Other European countries, on the other hand, such as Spain and Russia, have been rather well provided by nature with the resource prerequisites of an industrial society, but have only recently developed these natural endowments.

The conditions of industrialization reach far beyond the presence of natural resources. From a purely economic point of view it requires buildings, machinery, transportation, and public utilities—in other words, capital, the accumulation of which is difficult in a purely agricultural community. It requires trained technical and managerial staff that cannot be obtained in a peasant society. To obtain the efficiencies of mass production there must be a market measured in millions of people, not the petty market place of a rural village. Owing to the interdependence of these factors and the difficulties of self-genesis in a peasant economy, purely economic considerations alone dictate close relationship to more developed areas.

Quite as important as these economic problems are the social and cultural prerequisites. The centralization of industrialization is foreign to the peasant village and patriarchal family organization. Industrial labor supply must be attracted by the inducements of a money wage, but where the peasant lives by his own means outside the money economy this may be little attraction. In such a situation a stable labor supply can be acquired only after there has been sufficient contact with the outside world to stimulate wants for goods purchasable only with money. Such labor, even if willing, is untutored in the techniques and the discipline required of an efficient labor force in an industrial economy. Illiteracy and other aspects of cultural backwardness are serious deterrents to effective training.

The inertia of social systems is such that many social impediments must be swept aside in the process of industrialization. In many countries the mentality of the ruling class has been a serious brake on industrial development. Thus in Poland and other eastern countries the existing aristocratic leadership regarded participation in industry and commerce as degrading. Such sentiments tend to break down in the face of the material success of those who do engage in these activities, but they deter industrial progress. More generally, industrialization implies a degree of mobility of persons and capital foreign to an agricultural society with its traditional adscription of families to the soil and its conception of land as the chief form of wealth.

Not without importance are the religious and ideological outlooks of the populations concerned. The role of Protestantism in providing moral sanction and drive to the rationalization of economic activity is a common theme in the philosophy of history. Empirically the validity of the theory is suggested by the comparative economic development of Northern and Southern Europe despite the fact that the Catholic and Mediterranean worlds entered the modern era with many competitive advantages for economic development. Within the countries of North-western Europe it is not purely coincidental that predominantly Protestant areas have generally led in economic development given equivalent natural resources and proximity to the main centers of development. Thus in Germany Protestant enclaves in the Ruhr, in the Rheinpfalz,

in Württemberg, and in the regions of Frankfort-am-Main and Nürnberg have generally led their Catholic neighbors in degree of economic development. In the Netherlands the Catholic South has shown less economic enterprise than the Calvinist North, while in Switzerland Protestant regions include the main centers of Swiss industry. Obvious exceptions exist and Catholic countries have not proved impervious to industrialization, but, in general, Protestantism has facilitated modernization of the economy while Catholicism has often exercised a retarding influence.

Perhaps as the result of the complex nexus of social and economic conditions prerequisite to industrialization it has spread out from its centers of early development in Northwestern Europe rather more evenly than might have been indicated by the distribution of the necessary natural resources. The dependence of new industrial areas on the old has been so large that industrialization has tended to move across Europe from west to east along a rather solid land front. In the Mediterranean countries, where the industrial economy has been superimposed on an older commercial development, its growth has been more spotty, conditioned as it is by commercial contacts that derive from sea connections as much as from territorial contiguity. Only in the past fifty or sixty years have transport and communications reached a stage enabling the creation of the remote islands of heavy industrial development to be observed in Russia. The Soviet Union is the first country to achieve an essentially autonomous industrial civilization which is in most regards effectively insulated from the world economy.

The factors affecting the distribution of the non-agricultural labor force are too complex to be adequately explored here. Nevertheless it seems safe to assert that the apparent historical trend from purely industrial occupations to commerce and the services<sup>22</sup> has roots in two fundamental economic developments that seem likely to persist: (1) increasing specialization and (2) differential efficiency as between production and distribution.

The economies of mass production predicate specialization of product, on the one hand, and markets of large scope on the other. The process of specialization inevitably multiplies the problems of integration and with it the importance of those occupations involved in the process of integrating very diverse economic activities. The growth of "white-collar" employment, of "paper work," and of the service occupations would seem to be an inevitable accompaniment of specialization. At the level of markets, specialization means the diversion of a larger proportion of the labor force to transport and commerce than was necessary at the handicraft stage when the individual artisan commonly both produced and sold his product within the village community. In its broadest terms it means an increasing personnel in public administration necessary to keep a complex industrial society functioning.

The great economic gains that have provided the basis for rising levels of living have been chiefly in the realms of production and transport, much less in the fields of commerce and distribution. The ordinary clerk in a store is probably not much more efficient in terms of per capita service than his or her counterpart a generation ago, while the per capita productivity in industry has risen spectacularly.<sup>23</sup> Even in agriculture there have been greater gains than in commerce. Some efficiencies in commerce (e.g., in the development of chain stores) have probably been counterbalanced by diversion of effort to advertising and the promotion of sales. Consequently commerce and distribution have absorbed an increasing proportion of the non-agricultural labor force and seem likely to continue to do so in the future barring some radical economies such as, say, the elimination of commercial competition and distribution solely through government shops.

<sup>22</sup> Omitting from consideration domestic service, which has considerably declined in importance.

<sup>23</sup> The situation in many of the personal services is comparable to that of commerce, e.g., the serving of food, hairdressing, etc.

The implication of changing economic status, both within the major branches of economic activity and in the economy as a whole, are profound and at the heart of many of the ideological controversies raging in the modern world. But the factors involved in the very important changes accompanying industrialization are relatively simple. The shift from independent to wage-earning status is clearly the product of the increasing size of the average economic enterprise and the greater viability of large-scale enterprise in many fields of production. However, the proletarianization of the population is ameliorated by the rise of the salaried worker, whose number has grown in direct relation to the development of commerce and the services, and whose accepted status is commonly superior to that of a large part of the so-called "independent" workers in agriculture and petty trade.

*Generalizations with Regard to Occupational Structure*

It would be tempting at this point to fish in the troubled waters of speculation regarding the broader implication of the observed changes in the average man's occupation and work status in the process of industrialization, but inappropriate to the present study. Instead it may be useful to make more specific the observed generalizations regarding changes and differences in occupational structure:

1) True differences in the proportion of the population in the labor force are relatively small and are largely a function of the age distributions of the population concerned (i.e., the proportion of the population in the working ages). Large apparent differences are commonly the product of varying census practices regarding the inclusion or exclusion of unpaid family workers, especially of women in agriculture. In all countries a very high proportion of males between ages 20-64 are in the labor force. In the male population variability occurs chiefly in the proportion below and above these ages gainfully employed, depending on conventions regarding length of education and age at retirement. In peace time the proportion of women in the labor force varies much less than might be inferred from international comparisons of the "gainfully occupied," which are subject to greatly varying procedures as to the classification of women occupied as unpaid family workers.

2) Within the labor force there has been a clear drift from agriculture to other occupations. The extent of this movement and the proportion remaining in agriculture is not closely related either to the quality of the soil or to its developed productivity. The proportion dependent on agriculture is inversely proportional to alternative opportunities in other occupations, this being the determining factor rather than the positive opportunities in agriculture itself.

3) The development of non-agricultural occupations, what is commonly called "industrialization," has a pattern of geographical spread closely related to that of other cultural indices. Occupational changes have been conditioned by a wide range of economic and cultural elements, but like other aspects of modernization have moved almost irresistibly across Europe. There has been a universal trend in the direction of economic development.

4) Within the non-agricultural occupations the trends in the distribution of the labor force are not so sharply defined. In most countries mining and industry employ 50-60 per cent of this group. This percentage does not seem to differ very markedly among countries of very different stages of development, nor historically within the development of countries now heavily industrialized. There seems reason to suppose that both transport and commerce achieve increasing importance relative to industry with greater and greater specialization, with the enlargement of the market area, and with the rising importance of distribution relatively to production. However, this tendency is more marked in historical trends than in the contemporaneous comparison of countries at different stages of economic development. In European countries

generally a fifth to a fourth of non-agricultural workers are engaged in transport and commerce with rather higher proportions in the industrial countries, rather lower in the agricultural ones.

Contrary to what might be supposed, the public and private services considered as a whole have not been rapidly growing occupations relatively to other non-agricultural pursuits. Though many branches of the liberal professions and public administration (e.g., education) have been attracting steadily growing proportions of the labor force, these gains have been counter-balanced by relative stability in others. In backward economies certain professions (e.g., the clergy and the law) may occupy quite as large a percentage of the population as they do in the more advanced countries. Also the apparent increase in number of officials may be deceptive. The number of functionaries in the smaller states of Eastern Europe is proverbial; though the government service undoubtedly expands with economic development, it does not necessarily expand more rapidly than other non-agricultural occupations. Furthermore private services allied to domestic service have shared declining importance with that profession. As the result of these varied trends and the limitations of existing data, it is not possible to assert any definite relationship between the importance of service occupations generally and the development of the economy, but it is clear that, aside from domestic service and certain professions, they have been rapidly expanding in recent years.

5) Data on changes in economic status attending industrialization indicate a clear drift from independent to wage status, owing to both shifts in occupations and to changes in organization within each major branch of economic activity. In Europe west of the Soviet Union (where such categories are not applicable) about a fourth of the labor force remain in the "independent" and managerial class, more than half of these being family farmers. Over half of the labor force are classed as wage-earners and the remainder (about 15 per cent) are salaried employees. It is clear that the first category has been losing and will continue to lose ground. It seems almost as certain that the middle group, the salaried employees, will gain.

6) Finally, the continued process of industrialization in Europe postulates important changes in the regional differences in occupational structure prevailing in the interwar period. The division of Europe into its agricultural and industrial components was essentially a geographical as well as an economic one. In Figure 51 the agricultural and non-agricultural populations of European countries are depicted on two schematic maps, the size of the countries being proportional to their respective population in each category.

The map of non-agricultural Europe in the middle of the interwar period is a continent dominated by the great powers of the West. England and Wales, with less than thirty per cent of the total population of the Soviet Union, had a substantially larger industrial population. Even France had an industrial population comparable in size to that of the Soviet Union. Germany was clearly the outstanding industrial country. Its non-agricultural population was alone equal to that of all Slavic Europe leaving aside Bohemia-Moravia. The lesser countries of Eastern Europe appear as pygmies relative to the giants of the West. In these countries only a small fraction of the people had been caught up in the economic revolution, which by then had absorbed much the greater part of the populations in Western Europe. Since economic and military potential in the modern world is chiefly the product of the industrial population, this map undoubtedly presents a truer picture of relative power than one based on either geographical size or total population: the military and political weight of Europe was certainly in the West.

The map of agricultural Europe is in striking contrast. Here the great rural masses of the Soviet Union dominate the scene. It is England and the smaller countries of Western Europe that are the pygmies of the agricultural Europe. In these countries there remains little agricultural population still to be drawn into the vortex of the industrial society. Such that exists in

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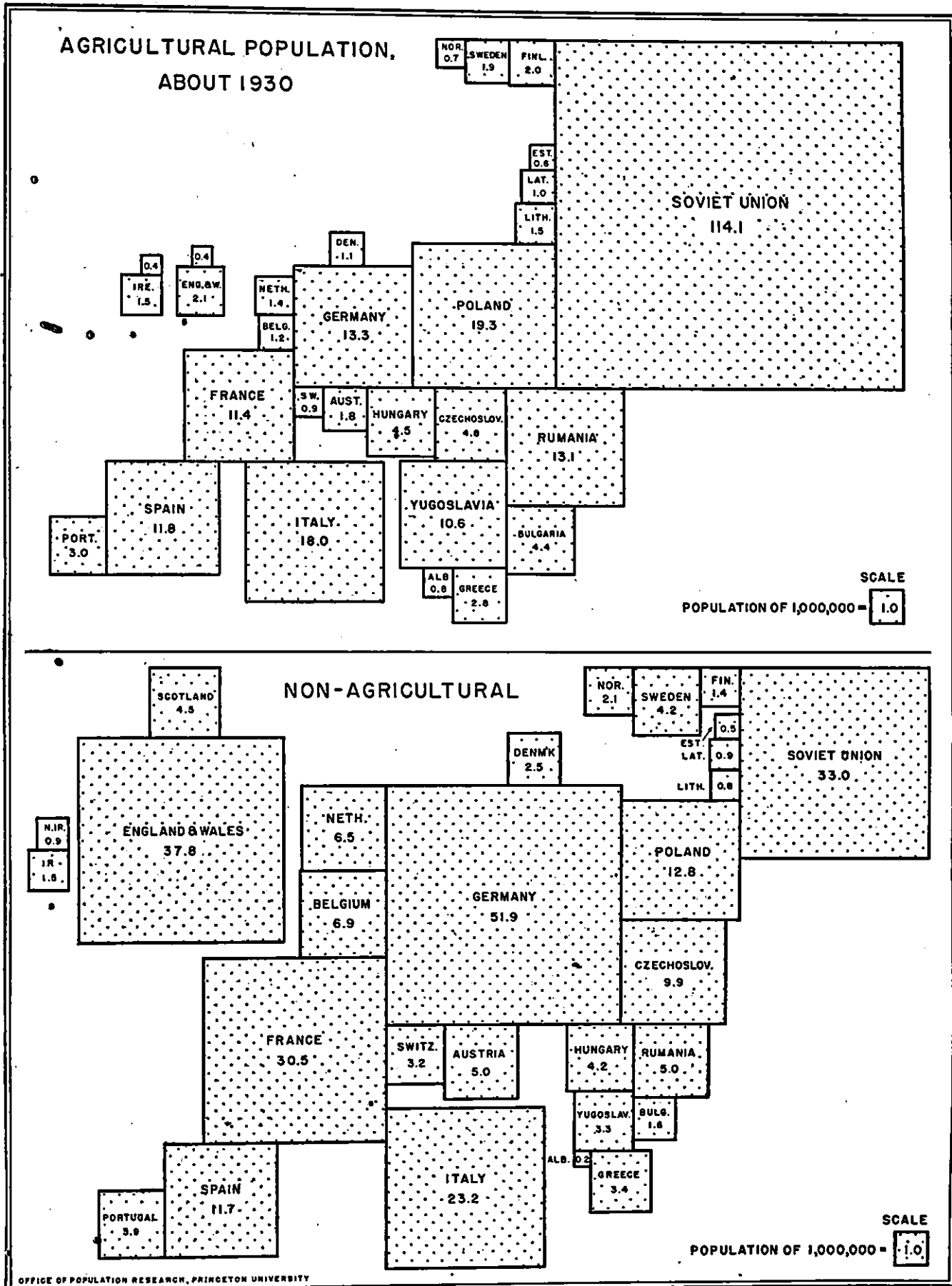


FIGURE 51. Schematic map of agricultural and non-agricultural Europe about 1930. (The area of each square is proportionate to the number of people dependent on agricultural and non-agricultural occupations, the sum of the figures for each country equalling the total population of that country.)

its commercial farming already is largely an adjunct of the urban economy. Though the trend from agricultural to non-agricultural occupations seems likely to persist even in Western Europe, the great revolution in occupational structure has already occurred.

In Eastern Europe this revolution is still to occur and there remains a great unexploited mass of peasants not yet effectively participating in the modern economy. Even in the Soviet Union, with its spectacular industrialization, more than half the population was still on the land in 1939, and by Western European standards she was still only a semi-industrialized country. It seems reasonable to suppose that the sharper contrasts of Figure 51 will rapidly disappear with the further industrialization of the Soviet Union and of Eastern Europe generally. Such a development would correspond with both past trends and the announced objectives of Eastern European countries.

#### *Economic Productivity in Agriculture*

The preceding section dealt with the occupational structure of the European population or, more simply, with the ways of getting a living. Little attention was given to the relative degree of success in the several major occupational groups, measured either in terms of productivity, of income, or of levels of living.

As one proceeds along the continuum from type of economic effort through productivity and income to the actual rewards in terms of consumption, the successive stages are even further removed than occupational data from the possibility of ready international comparison. Owing to difficulties of definition and classification, statistics on occupational structure are tenuous enough. But occupation is a relatively objective characteristic and customarily is ascertained for entire populations in the regular national censuses. Data on productivity are usually much less complete and fraught with great difficulties in the evaluation of services and of the value added by successive processing of the same product. Comparisons of labor productivity in plants producing the same article are relatively simple. But an estimate of the over-all effectiveness of the labor force can be achieved only when various products are weighed against some common standard such as money value. For this reason national productivity is customarily expressed in terms of the national income, or the total money value of all goods and services. Such figures have as yet been derived only with a wide measure of approximation, and international comparisons are possible only within broad limits. Finally, the measurement of levels of living is still in its infancy and at best can never hope to weigh all the intangible factors that enter into the choice of goods and services for which income is actually spent. Progress has been made in special studies of housing, diet, clothing, etc., but as yet we are still far from any comprehensive statistical appraisal of differences of levels of living among large populations and as between countries.

It is obvious that productivity, income, and consumption will be highly correlated in any national economy. Therefore estimates of national income, if soundly derived, would furnish a good index of both productivity and consumption as well, considering the population as a whole. Such efforts as have been made to estimate the national income of European countries as a whole<sup>24</sup> point to a pattern of economic productivity, income, and level of living in Europe resembling those of other social indices, the countries of Northwestern Europe having the highest per capita incomes, those of Eastern Europe the lowest, and those of Southern Europe intermediate values. These results, of course, conform with the general observation of the economic conditions in the respective areas.

<sup>24</sup> Cf. Colin Clark, *The Conditions of Economic Progress*. (London: Macmillan, 1940), Chapter II.

A more precise differentiation of productivity is possible for the agricultural population.<sup>25</sup> The statistics of agricultural production are more complete than those of other branches of the economy and the population to which this productivity relates is more precise. These materials have been utilized to compute an index of agricultural productivity, relating the average per capita product in each minor division to the European average as 100.<sup>26</sup> Thus a ratio of 200 represents a per capita volume of physical output twice that of the European average,<sup>27</sup> one of 50, only half that figure.

It will be immediately apparent from a glance at Figure 52 that high per capita yields in agriculture prevail in industrial Europe, low per capita product in those regions where agriculture is the chief subsistence of the local population. A comparison with Figure 46 shows a strong inverse correlation between agricultural productivity and the proportion of the population dependent on agriculture for a living. Britain, the most industrial country of the world, stands second only to Denmark in the efficiency of its agriculture. Denmark itself has developed agriculture to the status of an industry. A country little endowed with the raw materials necessary to industrialization, Denmark has been successful in improving its standard of living as much through a rationalized agriculture as through a rationalized industry. A similar type of specialized agriculture, producing for an urban market, has spread to neighboring southern Sweden and to German Schleswig.

As in England an efficient and specialized agriculture has grown up around the main industrial regions of France and Belgium. The valleys of the Meuse and the Moselle, which are regions of heavy industry, support some of the most prosperous agriculture in Europe. In general northern industrial France has a more remunerative agriculture than the so-called "agricultural" regions of Brittany and the Southwest. The Mediterranean littoral, which is largely urban, nevertheless has a lucrative agriculture. It will not require further elaboration to show that in Europe as a whole the greatest per capita productivity in agriculture is to be found in the industrial heart of the continent, the lowest in the peasant peripheries. It is exactly in those areas where agriculture is the chief activity of the population in which the rewards for effort in that occupation are least.

Secondly, an inspection of the map suggests little correlation between "natural" agricultural regions and *per capita* productivity. Regions of fertile soil do not necessarily stand out as areas of high productivity either in terms of yields per hectare or per capita. Thus the Po Valley,

<sup>25</sup> The materials and discussion that follow are largely drawn from a much fuller treatment of the subject in a companion publication of the Economic, Financial and Transit Department of the League of Nations, *The Economic Demography of Eastern and Southern Europe*, by Wilbert Moore (Geneva: League of Nations, 1945). The data are given by smaller divisions of Europe in Appendix II of the present volume.

<sup>26</sup> The total agricultural production of each district was computed from figures on physical output, the total quantity of each commodity in quintals being given a standard weight throughout Europe reflecting the typical or modal market exchange ratio between that product and a "crop basket" comprising the six most important European crops (five cereals and potatoes). The elaborate computations necessary to achieve the single figure for each area are described in Moore, *op. cit.*, Chapter II.

It should be noted that the indices given are indices of physical output, not of gross or net income, or even of net production in any economic sense. Owing to obvious accounting difficulties most of the costs of production (i.e., land, equipment, fertilizer, etc.) are not deducted for purposes of computing the indices. Furthermore it was impossible to make adequate allowance for international differences in quality and in the prices of agricultural products. The first of these limitations tends to accentuate recorded differences in agricultural product because costs are likely to be lower in areas of low per capita product than in those of high per capita product, greater capitalization usually being a factor in higher yields. The second limitation tends to operate in the other direction (i.e., to understate actual differences) because the quality of product is commonly superior and the prices of agricultural commodities are customarily higher in areas of large per capita output. Finally agricultural production does not necessarily represent the total income of the agricultural population, farming being often supplemented by income from forestry, fishing, and seasonal or part-time employment in industry.

<sup>27</sup> Owing to technical difficulties and to the fact of its large Asiatic territories figures for the Soviet Union were not included in the computation of European averages.



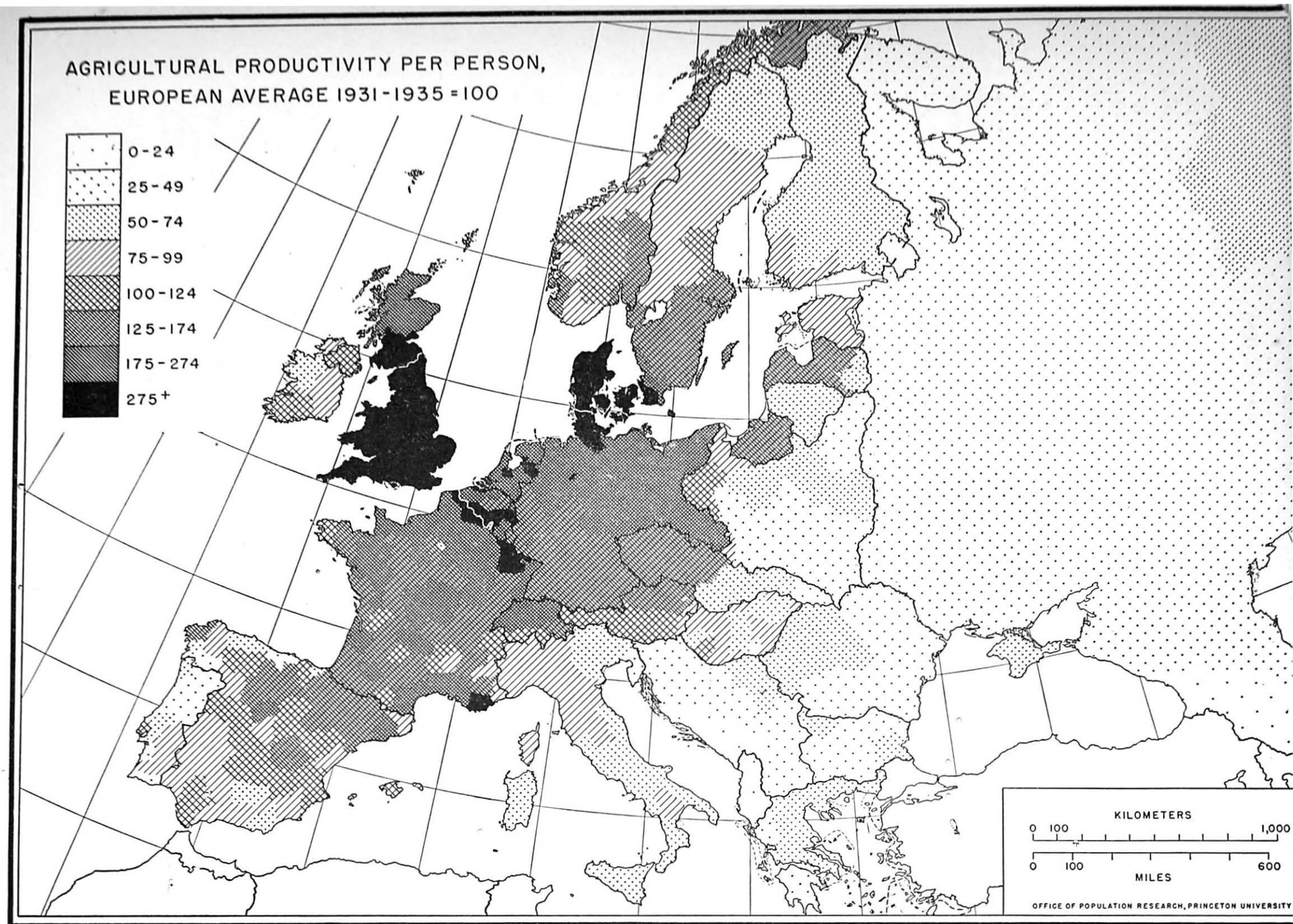


FIGURE 52. Per capita productivity of persons dependent on agriculture in interwar Europe, by minor divisions.

the Danubian plains, and the black soil districts of the Ukraine, all naturally suited to a highly productive agriculture, have low per capita yields. Even within countries the best lands by no means always support the most remunerative agriculture. Thus in Germany the "good" agricultural lands south and west of the Elbe have smaller per capita returns than the more extensive farming in the poor lands of northern and eastern Germany.

Average per capita product is a function of two variables: first, the total product and second, the population that derives its subsistence from this product. Poor soils and low acreage yields are therefore no barrier to a prosperous agriculture if the dependent population is correspondingly sparse. On the other hand good land does not necessarily support a well-to-do population. If agricultural techniques are poor and the density of population is great the per capita product may be very small despite advantages afforded by nature.

The chief factor determining agricultural prosperity in Europe is therefore not the quality of the land. Average per capita product is rather a function of two factors affecting the relationship of population to product: (1) the degree to which agriculture has been rationalized (2) the presence or absence of alternative opportunities available to the surplus agricultural population. High acreage yield and an efficient commercial agriculture is a natural concomitant of industrialization. The agricultural population has at hand the example of rationalization of industry to stimulate its own efforts to raise productivity through mechanization, through use of better seed and fertilizer, and through more efficient marketing. The high prices available in large and accessible markets encourage a specialized agriculture with a maximum of marketable surplus. Contact with the urban world creates a standard of living dependent on a maximized money income achievable only in this manner, or by deserting agriculture for a more lucrative occupation. Industrialization provides the opportunity for the latter. It induces both a larger agricultural production and a smaller agricultural population.

Within the general association of industrialization and high agricultural productivity special institutional and economic factors bring about local deviations. Thus per capita product is high even in non-industrial France owing to the slow or even negative growth of the rural population. Though French agriculture is extensive and of relatively low acreage yields by Western European standards, the existence of a sparse rural population results in a high per capita return. In Brittany, with its higher rate of population growth, per capita yields are low. In the Rhone Valley and especially in the Alps per capita productivity has probably been reduced through heavy Italian immigration into the region. In Italy itself per capita returns are low despite some industrialization, owing to the rapid increase of the rural population. In southern Germany per capita yields are lower than in the North despite natural advantages in quality of soil, owing to the continued small-peasant character of the agricultural population. In eastern Germany estate agriculture and in the North high farm capitalization have brought higher average per capita returns despite comparatively poor soils.<sup>28</sup> In most of Southern and Eastern Europe per capita product is pitifully low, both because of inferior techniques and because of a rapidly growing agricultural population without adequate alternative employment. Collectivization and the rationalization of agriculture in the Soviet Union probably brought about important advances in the per capita output of the Russian agriculturalist, but in the interwar period this was still very low by Western European standards.

The range of variation of per capita output in agriculture is very great. At the two extremes, the average per capita product in Denmark is no less than fifteen times that in Albania. In general it was three to four times as large in Northwestern Europe as in the East and South.

<sup>28</sup> This is not proof, however, that the economic welfare of the bulk of the rural population in these areas is necessarily superior to that of the South. Averages may conceal great differences in distribution, e.g., in eastern Germany, where the lot of the agricultural laborer is certainly not superior to that of the peasant in the South.

## EUROPE'S POPULATION IN THE INTERWAR YEARS

Such differences predicate enormous differences in the income and standard of living enjoyed by the respective rural populations. Since larger proportions of the population in Western countries have acquired higher incomes in non-agricultural employments the differences in the income and levels of living among total populations must be even greater. If past trends also govern the future, these great differences will be levelled only through the industrialization of the East.

The several economic and social indices considered obviously do not represent an exhaustive catalog of social and economic characteristics of the European population, even in so far as these may be quantifiable. But these general and representative indices are sufficient to indicate that interwar Europe was in a period of transition in cultural development similar to the demographic transition described in Chapter IV. Despite political unrest and economic crises, Europe was making rapid progress in so far as advancement may be measured in material terms. In every European country great strides were being made in the promotion of public health and the postponement of death. The spread of universal public education was forcing illiteracy into rapid retreat. Equally persistent and universal were the great migrations to the cities, the shift from agricultural to other occupations, and the decay of the peasant way of life in the face of the encroachments of urban values and standards.

Though much had been accomplished in the realm of material progress there obviously remained much to be done before Europe as a whole could reach the goals already achieved in the more "advanced" countries. Yet if past trends continue many of these goals seem attainable for the continent within a generation. With the continuation of past rates of progress in the reduction of mortality and disease, the standards of health currently set by Sweden and the Netherlands should be those of Europe by 1970. The extrapolation of past progress into the future would mean the reduction of adult illiteracy to an unimportant figure a generation hence. Given the continued existence of the almost universal and apparently irresistible drive from agricultural to non-agricultural occupation, the present balance of the two will be heavily tipped in favor of the non-agricultural pursuits. The shares of agriculture and other occupations in the labor force were roughly equal in the interwar period. Given past rates of industrialization, by 1970 the non-agricultural labor force should outnumber farm workers by two to one. With further industrialization, especially in Eastern Europe, the continent as a whole will have the means to higher levels of living as measured by the greater production and consumption of material goods.

At least as regards the elements entering into modernization and material progress, prewar Europe was in one stream of development. In no country had the process completely run its course; at the same time there was no country that had not experienced some influence of modernization. There was a European pattern of development substantially independent of national boundaries. The forces of modernization were universal and unidirectional. The war has undoubtedly raised great difficulties in the way of future material advance.<sup>29</sup> But postwar

<sup>29</sup> In many respects war will undoubtedly retard economic and social progress. The loss of human life, the destruction of physical goods, the disruption of economic organization, and, above all, the disintegration of cultural values attendant on war have eroded the physical and moral resources of the continent. Europe has suffered great capital losses in both human and economic terms; the problems of reconstruction are pressing and dramatic. But it is commonly overlooked that war may accelerate as well as retard existing social trends. War destroys much of the

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Europe inherits very persistent trends in the direction of further development of the material civilization that has given the continent leadership in the modern world.

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means of progress, but at the same time it sweeps away many institutional barriers and social inhibitions that stand in the way of change. In Czarist Russia, for example, the existing social order unquestionably acted as a brake on the economic advance of the Russian people. The First World War made possible the dissolution of these institutional barriers and the substitution of a regime much more conducive to material progress. In less dramatic fashion the war migrations, the military campaigns, and the political upheavals throughout Europe brought about a liquidation of vested interests formerly standing in the way of economic development. Particularly in Eastern Europe the First World War shook up a static society and opened the door to new influences that made rapid headway in the interwar period. The Second World War may well have similar results.

# CHAPTER X

## ETHNIC DIVERSITY

IN many ways the interwar period saw Europe in one stream of social and economic development. By objective standards the entire continent was working great advances in the conquest of disease and ill health, its people were becoming more literate, and its economies were developing with general improvement in levels of living. Political ideologies and differential economic opportunities have altered the rates of development in these regards, but not the direction. Change in the direction of what is so often optimistically described as "progress" was well-nigh universal. Sociologically speaking Europe was a single culture area with a dynamic nucleus of cultural diffusion in Northwestern Europe and a peripheral Southern and Eastern Europe several steps behind as measured by the objective standards of material progress.

Unfortunately unity in the direction of cultural development does not postulate political and economic harmony. The existence of common goals as often leads to conflict as to harmony, since the achievement of similar ends predicates competition in their achievement. In contemporary Europe conflict has been centered in ethnic rivalry and class struggle.

It is not the purpose of the present study to discuss the nature or the merits of claims made for particular ethnic groups and social classes. It is rather to inventory these groups in so far as it is possible to do so from the general population censuses of European countries. Certain of the objective facts of economic class distribution were discussed in the preceding chapter. In the present chapter an attempt is made to describe some of the objective evidences of ethnic diversity and to review past and possible future changes in this distribution.

### *The Criteria of Nationality*

With the final triumph of the ethnic over the dynastic state at Versailles the definition of ethnic nationality became one of the most vital issues in international affairs. When boundaries came to be determined and justified on the ground of ethnic affinities it was inevitable that the concept of nationality and its statistical measurement in the population censuses should have become the basis of endless dispute. Every nation felt bound to justify its boundaries, or to advocate their rectification, on ethnic grounds. Where one criterion, such as language, was unfavorable to the party concerned resort was commonly made to such criteria as religion, historical association, and even physical race. Both the criteria of nationality and its statistical measurement were common focii of international disputation in the interwar period.

### *Physical Race*

The weakest of the commonly cited criteria of nationality is race. One of the most vicious fallacies of contemporary civilization is the confusion of acquired cultural traits with physical race. In Europe physical race is probably one of the least important elements in ethnic difference. Conflicting characteristics commonly ascribed to the German "race," the French "race," or the Slavic "race" have no proved relationship whatsoever to observed differences in physical types, to the extent that the latter exist at all. Unfortunately the fallacy is not confined to the would-be "master races" but is common throughout Europe.

Racial differences in Europe do unquestionably occur. Between the blond Nordic, the stocky Alpine, and the dark Mediterranean there are measurable anthropometric differences. The distribution of these physical races, however, bears no relation whatsoever to existing political or linguistic boundaries and only an indifferent one to the major geographical divisions of the

continent. In fact the types are so hopelessly mixed that it is very difficult to draw even a general boundary between these major groups and much less between other sub-groups that have been distinguished.

Physical race is not enumerated in European censuses. It is almost impossible to distinguish true racial types in Europe except in terms of specific characteristics that are quantifiable only with more elaborate techniques than those available to the ordinary census enumerator. Even where specific characteristics such as the cephalic index, color of hair, skin, and eyes, stature, etc., are measurable, the mixture of types is so great that classification in terms of general racial type is very difficult.

The tenuousness of common measures of physical race in Europe is not commonly recognized. The cephalic index (i.e., the ratio of the width of the head to its length) has been the most popular basis for such distinctions but is only of academic importance from the point of view of conscious ethnic difference. It is questionable if round-headed persons have ever felt any community of interest as over against long-headed persons (or vice versa) on the basis of that difference alone. Every European nationality includes numerous individuals of all of the three major types commonly distinguished. In any event their distribution ruthlessly cuts across linguistic and other measures of ethnic types.

Stature is another favored measure of physical type but its validity as a criterion of physical race has been seriously undermined in recent years by the discovery that there is a secular and rather uniform increase in stature observable in countries having good statistics, apparently arising from changes in diet. The observed change averages about one centimeter a decade, or approximately an inch each twenty-five years. Under such circumstances the influence of race and of environment in stature is sufficiently confused to vitiate comparisons of stature except where environment is held constant. Nations may differ in their modal stature, but variations within countries (e.g. as between classes) are as great as those between them. Increase in stature is a concomitant of rising levels of living. Though true racial distinctions in this regard may exist, they are confused with degree of economic development and of little real significance in ethnic differences within Europe.

Color of skin, hair, and eyes varies less with nurture and environment than does stature, but the first two, at least, are affected by the degree of exposure to sunlight and weather. There is a general concentration of blond types in Northern Europe and of brunet types in the South. But the progression is a continuous one with no sharp geographical boundaries. South Germans are darker than North Germans; the Frenchman of the Mediterranean is more brunet than his compatriot of Normandy or Burgundy. But there is no sharp dividing line of blonds and brunets in either country, or for that matter in any European country. Furthermore the Frenchman of the North is, if anything, blonder than the South German. Differences in color types within a country are often greater than those to be observed as between the two sides of any given political frontier.

The latest enthusiasm of those interested in distinguishing European physical types is blood groups. At least four types have been distinguished on the basis of presence or absence of agglutination with other groups. On the basis of widespread tests a geographical pattern of distribution has been determined based on the frequency of the several types in the population. Very wide regional differences between Western and Eastern Germany have been ascertained, but Central Europe, with its Babel of Polish, Czech, Slovak, Hungarian, Rumanian (and German) language, has been shown to be relatively homogenous in this regard. Furthermore there is no established relationship of blood group with other measures of physical race, such as cephalic index, stature, or color traits. In fact the geographical continuum of blood

group distribution is an east-west one, thereby cutting at right angles across the north-south progression of color traits.

These and other measures of physical race reveal no clearly defined "races" paralleling the commonly recognized ethnic groups or "nationalities."<sup>1</sup> The confusion of race and nationality arises from the assumption that differences in language and culture are the expression of innate physical differences. Yet there is no evidence that this is the case.

Despite popular assumptions and the emotional attractiveness of racial theories, language is clearly no test of physical race. There is ample evidence of linguistic change without any corresponding modification in anthropometric type. In Britain and in France the Celtic languages have retreated markedly without any observed change in the physical attributes of the populations undergoing such transformations. In comparatively recent times the Basque language was spoken over a wider area than at present but there is no clear indication of any anthropological changes in the persons assimilated to Spanish speech. Even such widely accepted theories of racial origin as the supposed descent of the Hungarians from Mongol tribesmen probably belong in the realm of mythology. The use of an Asiatic dialect is of entomological interest but no proof of Asiatic race. The present inhabitants of Hungary are racially indistinguishable from neighboring Slavs. Either the language was acquired from Mongol overlords who left little physical imprint on the subject peoples, or through infiltration the race has changed while the language remained the same.

One has only to raise the horizon beyond Europe to America in order to realize the utter fallacy of the confusion of race with other ethnic attributes. Many Latin American countries remain unmistakably Indian in race despite the assimilation of European languages and customs. The United States has absorbed thousands of emigrants from every European country, who have readily acquired the language and the customs of the new land. In addition there are twelve million Negroes who, on the basis of linguistic affinity, must be classified as Anglo-Saxon.<sup>2</sup>

Such examples could be multiplied indefinitely both in Europe and in other continents. Though it is beyond the scope of the present study to present the appropriate anthropological evidence in statistical terms it is safe to say that true differences in physical race are a relatively small component of national rivalries in Europe and that culturally acquired differences in language, traditions, and legal citizenship are the decisive elements in determining nationality.

Nationality and ethnic heterogeneity may be measured at three levels: (1) juridically in terms of political nationality, (2) mechanically in terms of national origin or place of birth, and (3) realistically in terms of the personal characteristics and subjective sentiments of the individuals concerned. The first two will be discussed briefly, the last at greater length in keeping with its greater factual importance.

### *I. Political Nationality*

Political nationality is not a good index of ethnic diversity. Regardless of sympathies or

<sup>1</sup> With the exception of two widely scattered groups, the Jews and the Gypsies, who do generally differ markedly in physical type from the populations among which they live. But, among the former in particular, there is much evidence of racial intermixture (e.g., blond Jews are not rare, though blond types are found much less frequently than among the surrounding Nordic and Alpine peoples).

<sup>2</sup> An interesting case of linguistic accident occurs in Canadian Nova Scotia where there is a Negro community of Gaelic speech surrounded by English-speaking whites. An equation of linguistic and racial origins would necessitate a theory that this Negro community represents the remnants of an emigration from Gaelic sections of Scotland. In actual fact the ancestors of the present inhabitants were, of course, brought from Africa as slaves and acquired their speech from Gaelic-speaking Scottish masters. The latter have since been assimilated in the English-speaking majority, while the former, owing to relative cultural isolation, have persisted in their acquired Celtic dialect!

ethnic affinities individuals are required to have a legal nationality deriving from that of their parents or from their place of birth and consistent with the laws of the country of residence. Change of nationality through naturalization is always a theoretical possibility but in actual fact residence requirements and other disabilities seriously limit the range of free choice in the matter. Consequently many persons possess a juridical nationality that does not describe their true ethnic characteristics or sentiments.

°Furthermore, the proportion of aliens in the population as recorded in the censuses is not a good measure of the number of persons of foreign origin. Differences in census practice are a major barrier to international comparability.<sup>3</sup> The intricacies of the definitions of political nationality confuse both census enumerator and the respondent, and deliberate misrepresentation undoubtedly adds to the confusion.<sup>4</sup> Worse, nationality laws are such that they commonly include many persons born and brought up in the country at the same time that they exclude persons raised elsewhere.<sup>5</sup> Finally, the chaotic political situation and numerous territorial changes of Eastern Europe have resulted in hopeless complexity of status for many individuals, and in some cases the result has been the absence of any legal nationality (i.e., the Nansenists). Consequently certain countries, notably Poland and Rumania, made no attempt in their censuses to differentiate political aliens.

Statistics of aliens must be considered within the framework of these and other limitations. In general they are a minimum measure of ethnic heterogeneity. In few countries are aliens a quantitatively large proportion of the general population.

The percentage of aliens in the populations of the several European countries are shown in Table 16. The largest proportion of aliens was to be found in Switzerland. Long boundaries relative to area, close cultural relationships with three of the major nationalities of Western Europe, and the difficulties of acquiring Swiss citizenship combine to give a high proportion of aliens. In France slow population growth and high living standards have created a demographic vacuum into which foreigners have poured from all sides. The large figure for Austria obviously reflects the cosmopolitanism of its capital city and the inheritance of Vienna's historical position as the seat of a great empire. Similarly the number of aliens in Latvia is the product of Riga's position as an important commercial port of the old Russian Empire and its more recent importance as the cultural and economic center of the Baltic countries.

All European countries reporting more than two per cent of aliens in the population are cosmopolitan or trading communities, their cities commonly being the meeting ground of diverse ethnic groups. All, with the exception of France, are small nations with long frontiers relative to their mass. In general they have higher levels of living than their neighbors.

The countries with smaller proportions of aliens are of two types: (1) geographically isolated countries without extensive land frontiers such as those of Scandinavia, Great Britain, and

<sup>3</sup> In some countries the census relates to all persons present in the territory at the time of the enumeration, thus including tourists and transients of foreign nationality as well as foreign residents. In others the census figures relate only to the population legally resident in the country at the time of enumeration, thus excluding foreign transients but presumably including persons customarily living in the country who happened to be absent at the time of the census.

<sup>4</sup> Thus in some countries (those of *jus solis*), nationality is determined by place of birth, in others (those of *jus sanguinis*) in accordance with the nationality of the parents. Even where the law is clear, confusion will arise if it conflicts with popular conceptions of nationality.

<sup>5</sup> In countries of *jus sanguinis* the child or wife of a foreigner is also technically a foreigner regardless of birth-place and upbringing. At the same time persons born and raised abroad are classified as citizens if their fathers were.

Thus according to French law French wives of foreigners are legally of foreign nationality but it is apparent that in general they are not so enumerated in the census. Owing to the disabilities of foreign citizenship in all countries there is every inducement to be reported as native if it is possible to do so.



## EUROPE'S POPULATION IN THE INTERWAR YEARS

Southern Europe (2) Eastern European countries which have neither attracted international trading communities (owing to their lack of economic development) nor extensive immigration (owing to their low levels of living and the traditional immobility of their peasant populations).

 2. *Origin, or Place of Birth*

Foreign birth is of course not direct evidence of ethnic diversity but a measure of the quantitative effects of immigration. As such it is one criterion of the extent of alien influences in

TABLE 16  
Aliens and Foreign-Born in Interwar Europe

Country	Census		Number		Per Cent of Total Population	
	Date	Type <sup>a</sup>	Aliens	Foreign-Born	Aliens	Foreign-Born
Switzerland	1930	J	355,522	359,168	8.7	8.8
France	1931	J	2,714,697	2,897,113	6.6	7.1
Austria	1934	J	289,305	782,080	4.3	11.6
Belgium	1930	J	319,230	422,178	3.9	5.2
Latvia	1930	F	56,168	128,630	3.0	6.8
Netherlands	1930	J	175,850	244,838	2.2	3.1
Czechoslovakia	1930	F	249,971	452,308	1.7	3.1
Greece	1928	F	73,338	1,159,311	1.2	18.7 <sub>e</sub>
Germany	1933	J	756,760	—	1.2	—
Norway	1930	J	35,114	53,650	1.2	1.9
Estonia	1934	F	12,201	—	1.1	—
Yugoslavia	1931	F	140,766	305,034	1.0	2.2
Denmark	1930	F	35,904	90,339	1.0	2.6
Hungary	1930	F	81,491	619,115	.9	7.1
Finland	1930	J	27,711	45,016	.8	1.2
Bulgaria	1934	F	40,903	286,577	.7	4.7
Lithuania	1923	F	12,457	—	.6	—
England & Wales	1931	F	159,337	307,570	.4	.8 <sub>c</sub>
Spain	1930	F	83,791	155,540	.4	.7
Portugal	1930	F	30,443	—	.4	—
Scotland	1931	F	15,594	28,116	.3	.6
Sweden	1930	J	16,475	61,657	.3	1.0
Italy	1931	F	137,797	457,347	.2	1.1

<sup>a</sup> (J) signifies *de jure* or resident population, (F) *de facto* or present population.

the population. The percentages of foreign-born in the populations of European countries are given in Table 16.

A comparison of the percentages of foreign-born and of aliens suggests two important differences: (1) the number of foreign-born is higher than the number of aliens in every European country owing to naturalizations and to the return of persons born of native parents abroad, (2) the difference is greatest in those countries which have received large influxes of refugees and immigrants as the result of territorial changes. Thus Greece, with only 1.2 per cent of her population alien, had a foreign-born element of 18.7 per cent of her population in 1928, this being the residue of the Greco-Turkish population exchanges and of the liquida-

tion of Greek colonies throughout Asia Minor and Southern Russia. Many of these refugees were actually of foreign origin (i.e., from outside the territories ceded to Turkey as result of the Greco-Turkish hostilities of 1922) but almost all were formally or informally accepted to Greek citizenship. In Austria the large per cent of foreign-born reflects both the return to the rump Austria of civil servants, etc., from the Succession states and also the residue of old migrations to the metropolis, chiefly from neighboring regions of Czechoslovakia. Estonia and Latvia were refuges of anti-Communist elements in the break-up of the Russian Empire. Hungary and Bulgaria, defeated in World War I, were hosts to many of their ethnic nationals who chose or were forced to migrate from ceded territories. Such persons are of course only technically "foreign-born." The order of countries not affected by refugee migrations is substantially that of the per cent aliens.

The degree of heterogeneity introduced by aliens is probably greater than might be suggested by their small numbers, while large numbers of foreign-born do not necessarily imply ethnic differences. The large refugee migrations in Eastern Europe tended to reduce rather than increase ethnic heterogeneity since migrants usually sought refuge in the country where their language was dominant. Such persons account for a substantial proportion of the foreign-born in most Central and Eastern European countries. Political aliens, on the other hand, are usually ethnic as well as legal aliens.<sup>6</sup> The very fact that they have maintained their alien citizenship is indicative of a strong core of foreign roots. Except in countries of mass immigration aliens commonly represent an influential class of merchants, teachers, agents, etc., whose importance exceeds their numbers.

Aliens and the foreign-born have been a source of international conflict, especially when such persons have served as the spearhead of Trojan horse activities. But usually their numbers have been too small to seriously disturb the unity of the host country. The troublesome minorities of Europe are not those acquired through migration but rather the ethnic and linguistic minorities long rooted in the soil. Such minorities are distinguished, not by their nominal political allegiance or place of birth, but by their ethnic attributes.

### 3. *Ethnic Characteristics*

As has often been pointed out, nationality is a sense of common feeling deriving from community of language, religion, custom, and historical tradition. These elements do not have consistent weights, nor does the chemistry in which they are mixed always yield predictable answers. Few types of statistical data are the subject of so much heated controversy as census data relating to ethnic characteristics. Versailles ushered in an era in which every nation felt bound to justify its boundaries, or to advocate their rectification, on ethnic grounds; census data have commonly furnished the basis of such arguments.

Under such circumstances census figures on ethnic composition are inevitably weighted in favor of the dominant nationality. Questions are customarily phrased so as to favor the dominant group and in their replies many doubtful borderline persons of double language or mixed nationality find it convenient to identify themselves with the dominant element. The political and economic advantages of belonging to the majority group undoubtedly result in an exaggeration of the percentage of that element in the reported census distribution, entirely aside from the manipulations of the central statistical offices.

Minorities and their spokesmen, on the other hand, have vociferously taken issue with the official figures and have commonly made extravagant claims even more remote from the truth

<sup>6</sup> Though, of course, not necessarily so. Thus, for example, over half of the foreigners in Germany were of German mother tongue, i.e., from German-speaking colonies abroad.

than the official figures. Each side customarily selects the measure of ethnic nationality most favorable to its side in the dispute. Thus in Alsace-Lorraine the French case is based on historical association and tradition, the German on linguistic affinity. The union of the Sudeten Germans with Czechoslovakia was based on geographical and historical elements, while the German case was based on language. In Upper Silesia and the Polish Corridor, on the other hand, the nature of the claims were reversed; the German case was based on historical affinity and economic unity, the Polish on language. The determination of ethnic nationality is thus often a complex matter in specific cases. While recognizing the complexity of factors involved, the following discussion for reasons of simplicity will focus on the most commonly applied measure of ethnic nationality, namely, language.

### *Language*

Of the several components of ethnic nationality language is unquestionably regarded as the most important single element. In view of the pre-eminent importance of language in the transmission of cultural heritage it is understandable why language should have become the chief rallying point of nationality in Europe. Language is probably the greatest invention of mankind and the one that has made possible most of the cultural achievements which distinguish human beings from other creatures. In the modern world, language is the most important of cultural traditions. The measurement of linguistic distribution in the official censuses is therefore of crucial political importance.

### *Pitfalls in Linguistic Statistics*

It would be idle to contend that any exact statement of the distribution and numbers of persons speaking the several European languages is possible. As in other types of demographic statistics the census figures attain only the appearance of precision. But in the case of data relating to language the usual pitfalls in the census enumeration are further complicated by deliberate attempts to influence the results to the political advantage of the country concerned. All linguistic data should be accepted only with reservations taking into account the many possible sources of bias.

Bias in the census enumeration of language may appear (1) in the posing of the question, (2) in the way in which the question is answered, and (3) in the method of tabulating and interpreting the results. At each of these levels there arise opportunities for guiding the results in a desired direction.

Thus much obviously depends on how the question is put. In a number of countries the individual is asked his "mother" tongue (i.e., the language first learned in the home); in others he is queried as to his "usual" or customary language; in still others he is merely asked to state his knowledge or ignorance of specific languages. Other things being equal the use of mother tongue favors minorities in the process of assimilation, since it records the original language of the respondent and not his linguistic practices as influenced by schooling and adjustment to the dominant language. Most of the Succession states of Eastern Europe adopted this criterion of language after the First World War, because it favored the local idiom at the expense of languages formerly supported by the schools and by use in all phases of public life. "Usual" or customary language, on the other hand, favors the dominant language and was hence applied to the advantage of German in old Austria.

Finally, the criterion of knowledge of a language as the basis for classification obviously gives maximum numbers. Thus its use in the German census of 1933 gave a maximum number of German-speakers, including a great many bilinguals. As applied in the British Isles this

criterion maximizes the apparent numbers of persons actually using the several Celtic languages.<sup>7</sup>

Legitimate reasons exist for the use of different criteria of language in areas of differing problems. But it is apparent that knowledge of the criterion employed is essential to a critical evaluation of linguistic statistics in any country having a substantial bilingual or multilingual population.

Further possibilities of bias in the manner of posing the census question arise in the choices made available to the respondent. Legitimate difficulties arise in drawing the line between languages and dialects, but these difficulties lend themselves to manipulation for the achievement of political objectives. Thus in the censuses of the German Empire there was no provision for recording the dialect of Alsace-Lorraine (or of other German dialects) as independent from German, so that all Germanic-speaking persons in this province were recorded under the single heading of "German." The French, however, were obviously interested in distinguishing the local dialects from High German and in their linguistic census of Alsace-Lorraine in 1921 and 1926 the question was so phrased as to give the respondent the opportunity of reporting his language as a "dialect" rather than as "High German."

Serious difficulties also arise as to how the question is answered. No matter how impartially the census question is phrased it is apparent that if language is a point of conflict the answers will be influenced by emotional and other considerations. Where personal advantage or prestige is involved, bilingual persons will tend to report themselves as adherents of the dominant language regardless of the facts. For negative reasons others may be afraid of admitting minority status. Zealous enumerators may be induced by nationalistic considerations to interpret and record the answers in ways favoring the dominant language. Such biases are scarcely measurable, but they may be assumed to be present in most European linguistic censuses.

The final question of accuracy arises in connection with how the results are tabulated and interpreted. The conclusions derived from linguistic censuses may often be altered by the system of classification used in the presentation of results. Thus in the old Austrian censuses all Yiddish-speakers were classified as Germans despite the protests of Jewish minorities. In this way the apparent German minorities in Galicia and Bucovina, for example, were magnified by the presence of Jewish elements who formed the core of the urban populations in the region. The opposite objective (i.e., of minimizing the importance of a minority) may be achieved by enumerating dialects and fractions in detail and thereby drawing attention away from the whole. Thus in German censuses Kaschub and Masurian are distinguished from Polish, though these are Polish dialects with no greater differences than exist between German dialects to which no official recognition is given. Similarly in Poland the inhabitants of Polesie were arbitrarily reported as speaking a "local" language which actually is a dialect of White Russian; in Hungary indigenous South Slav minorities of Serbo-Croat speech were given local names and were separately classified.

The cumulative importance of such biases in favor of the dominant nationality has been effectively illustrated by Tesnière<sup>8</sup> in a comparison of the results of the 1921 Czechoslovak census and the earlier Austro-Hungarian census of 1910 in its component areas. The prewar Austrian census reported 3,750,325 German-speakers (including Yiddish). By comparison the Czech census in 1921 reported only 3,304,423 German- and Yiddish-speakers, a difference of

<sup>7</sup> In the 1931 census of England and Wales 909,361 Welsh-speakers were reported in Wales and Monmouthshire, but only 97,932 could not speak English. In Scotland there were 136,135 Gaelic-speakers, but only 6,716 who could speak only Gaelic. In the Irish censuses of 1926 and 1936 the "Irish-speakers" include many persons who studied the revived language as a required subject in the schools but who have never used Irish as a living language.

<sup>8</sup> In A. Meillet, *Les langues dans L'Europe nouvelle* (Paris: Payot, 1928), a statistical appendix by L. Tesnière gives detailed estimates of the contemporary linguistic situation in every European country, preceded by an excellent introduction dealing with the pitfalls in linguistic censuses.

13.7 per cent. The Hungarian census of 1910 reported 1,070,854 Hungarians in Slovakia, the Czech census of 1921 only 745,431, a difference of 325,423 or 43.6 per cent. Though the Austrian and Hungarian populations were adversely affected by war losses and out-migration in the intervening decade the size of the discrepancies is so great that they can be fully explained only as the result of biases in the censuses favoring the dominant nationalities at the time of the census.\*

*Distribution of Languages According to Interwar Censuses*

Table 17 has been prepared with a very keen realization of the defects of linguistic censuses in Europe. It may be taken for granted that in most cases the size of linguistic minorities were minimized and that the apparent proportion attributed to the national language was correspondingly maximized. Linguistic data from the interwar censuses do not ordinarily serve to give a sufficiently precise statement of the facts to warrant assertions, for example, that in Province A, 51 per cent of the population customarily used the national language and 49 per cent that of a minority group. They are not sufficiently accurate to draw fine lines of distinction in cases where the numbers are approximately equal. Nevertheless they do provide the necessary basis for any discussion of questions of linguistic minorities.

Table 17 is arranged in order of leading linguistic families and their kinship groups, in order to indicate the numerical importance of related language groups as well as of specific languages. The subsequent discussion follows this general pattern and then gives some brief attention to the individual tongues spoken by Europeans.

The paradoxical character of Europe today is perhaps in no regard more poignantly demonstrated than in the contrast of its unity in material civilization and the anarchy of its linguistic make-up. In the arts of peace and in even the arts of war, Europe is in one stream of cultural development. In language and ethnic loyalties it is chaos.

The overwhelming majority of Europeans speak languages of the Indo-European family, all in some prehistorical period derived from a common ancestral tongue. In Europe west of the Soviet Union about 95 per cent of the population speak Indo-European languages. In Europe and the Soviet Union, thus including the numerous non-European languages of the U.S.S.R., the proportion is 91 per cent.

The common ancestry of the languages spoken by more than nine-tenths of Europeans unfortunately provides no basis for mutual intelligibility or common feeling. The extent of diversity among the descendants of the remote ancestral language is suggested by the fact that English, Russian, and Hindi—all great languages spoken by 100 million or more persons—can all claim common descent from the original Indo-European. No less than 34 Indo-European tongues are commonly distinguished among the languages spoken in Europe today, and of these only those of closest kinship are in any way mutually intelligible either as written or spoken languages.

Within the Indo-European family the languages spoken in Europe are commonly divided into nine branches, but of these only three have played a major role in modern Europe. These three, the Slavic, the Germanic, and the Latin, include the major languages of contemporary Europe; the remaining branches of the Indo-European family and the representatives of other linguistic families are either the remnants of languages once much more widely distributed or the deposit of one or another of the countless migrations and counter-migrations that have swirled across Europe in historic and prehistoric times.

\* Tesnière unfairly describes the per cent differences as "errors" in the Austrian and Hungarian censuses of 1910, ignoring the possibility of Czech bias in the opposite direction.

Of the major ethnic groups the Slavs are both the most numerous and the most widely dispersed. Slavs occupy more than half the territory of Europe, and the area of closed Slavic settlement reaches far into Siberia in Asia. Before the war the Slavs numbered 195 million of which two-thirds were to be found in the Soviet Union and less than a third (about 60 million) resided in countries west of the U.S.S.R.

The Slavs are the descendants of closely related tribes speaking a common language. They have only in recent centuries come to participate prominently in European civilization. In consequence the several Slavic dialects have only in comparatively recent times been effectively crystallized into stable written languages. Geographically they tend to merge into one another imperceptibly without the clearly defined linguistic boundaries that exist where the mass of the people have been literate for several generations and have been assimilated to a single national idiom.

Owing to their close cultural contact with Western Europe, the West Slavs (i.e., the Poles and Czechs) were the first to develop a coherent nationalism in the modern sense. As a result this wing of the Slavic peoples displays greater differentiation and perhaps less common Slavic feeling than the Slavs of the South and East. By contrast the South Slavs are a relatively amorphous group. Isolated from both Western and Eastern Slavs by a wedge of non-Slavic peoples they speak closely allied dialects of what is practically a single South Slavic language, stretching across the Balkans from the Black Sea to the Adriatic. The line between Serbo-Croat and Bulgarian speech, or between either of these and Macedonian, is almost impossible to draw, though the official literary languages sanctioned by Yugoslavia and Bulgaria differ, and the Serbo-Croat version is variously written in Latin and Cyrillic characters, the Croats having long been under the influence of Rome, the Serbs that of Greece and the Eastern Church. The most distinct group of South Slavs are the Slovenes of northwestern Yugoslavia, but they number only a million and a half, without an intensive literary and cultural tradition.

The South wing of the Slavic group is not very populous, including only about 18 million members in 1930. The West Slavs, with 34 million, were more numerous. But the great bulk of Slavs belongs to the Eastern wing of the Slavic family—the Great Russians, the White Russians, and the Ukrainians. These closely allied groups are the majority of the population in about half the physical area of Europe, chiefly in the interwar territory of the Soviet Union.

The linguistic and ethnic heterogeneity of the Soviet Union is frequently exaggerated. Though it includes scores of diverse and exotic languages, most of these are spoken by only a few thousand inhabitants. In actual fact practically four-fifths of the Soviet people in Europe and Asia speak Slavic tongues; three-fourths being either Great Russian or Ukrainian. The Eastern Slav languages also extended beyond the interwar borders of the Soviet Union into large territories of Poland, and lesser areas in Czechoslovakia (Carpathian Russia), Rumania (Bucovina and Bessarabia), Latvia (Latgale), and Estonia (Petseri), all areas now incorporated in the Soviet Union.

After the Slavs the most numerous general linguistic group are the Germanic-speaking peoples. The Germanic languages were initially languages of the shores of the Baltic and North Seas, but later spread into Central Europe and are now spoken in the industrially most important regions of the European continent.

Of the two main branches, the West and the North Germanic languages, the former has far the greater number of adherents. The Western branch includes English, Dutch, Yiddish, and German, and has achieved very wide distribution, through English in the world, and through German and Yiddish in Europe. In Europe alone West Germanic languages are spoken by 150

Distribution of Languages in Europe

(Numbers of speakers in thousands, where possible generally following the official statistics of the coun

Language and Linguistic Groups	Albania <sup>1</sup> 1938	Austria 1934	Belgium 1930	Bulgaria 1934	Czechoslovakia 1930 ("Ethnic Nationality")	Denmark <sup>2</sup> 1930	Estonia 1934	Finland 1930	France <sup>3</sup> 1931	Germany <sup>4</sup> 1933	Greece 1928	Hungary 1930	Ireland <sup>5</sup> 1936	Italy <sup>6</sup> 1931	Latvia 1930	Lithuania 1923 ("Ethnic Nationality")	Netherlands <sup>7</sup> 1930
<b>INDO-EUROPEAN FAMILY</b>																	
<i>Slavic Branch</i>																	
<i>East Slavic:</i>																	
Russian....	—	—	—	12	—	—	92	8	—	—	—	—	—	—	252	51	—
Ukrainian...	—	—	—	—	569	—	—	—	—	—	—	—	—	—	20	4	—
White Russ'n	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>West Slavic:</i>																	
Polish (Incl. Kaschub & Masurian)	—	—	—	—	100	—	—	—	—	438	—	—	—	—	49	66	—
Czechoslovak	—	52	—	—	9,757	—	—	—	—	6	—	108	—	—	—	—	—
Serbian (Wend)...	—	—	—	—	—	—	—	—	—	57	—	—	—	—	—	—	—
<i>South Slavic:</i>																	
Serbo-Croat	—	42	—	—	6	—	—	—	—	—	82	55	—	192	—	—	—
Bulgarian...	—	—	—	5,275	—	—	—	—	—	—	17	3	—	—	—	—	—
Slovene.....	—	32	—	—	—	—	—	—	—	—	—	5	—	381	—	—	—
<i>Germanic Branch</i>																	
<i>West Germanic:</i>																	
German.....	—	6,585	100	4	3,318	40	18	—	1,400	64,603	—	479	—	303	81	89	—
English....	—	—	—	—	—	—	—	—	—	—	—	—	2,292	—	—	—	—
Dutch (Incl. Flemish)...	—	—	4,136	—	—	—	—	—	200	—	—	—	—	—	—	—	7,760
Yiddish.....	—	—	—	—	205	—	2	—	10	—	—	—	—	—	78	154	—
<i>N'th Germanic:</i>																	
Swedish....	—	—	—	—	—	—	6	343	—	—	—	—	—	—	—	—	—
Danish (Incl. Faroese)...	—	—	—	—	—	3,499	—	—	—	4	—	—	—	—	—	—	—
Norwegian...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Icelandic...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Latin Branch</i>																	
Italian (Incl. Sardinian & Friulian, etc.)	—	—	—	—	—	—	—	—	300	—	—	—	—	39,888	—	—	—
French.....	—	—	3,513	—	—	—	—	—	35,732	—	—	—	—	100	—	—	—
Spanish (Incl. Ladino)....	—	—	—	28	—	—	—	—	—	—	63	—	—	—	—	—	—
Rumanian (Incl. Vlach)	13	—	—	16	14	—	—	—	—	—	20	16	—	1	—	—	—
Portuguese....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Catalan.....	—	—	—	—	—	—	—	—	200	—	—	—	—	14	—	—	—
Romanche (Incl. Ladin)	—	—	—	—	—	—	—	—	—	—	—	—	—	17	—	—	—
Greek Branch....	37	—	—	10	—	—	—	—	—	—	5,760	—	—	35	—	—	—
<i>Baltic Branch</i>																	
Lithuanian....	—	—	—	—	—	—	—	—	—	2	—	—	—	—	16	1,739	—
Latvian.....	—	—	—	—	—	—	4	—	—	—	—	—	—	—	1,390	15	—
<i>Celtic Branch</i>																	
<i>Britannic:</i>																	
Welsh.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Breton.....	—	—	—	—	—	—	—	—	1,000	—	—	—	—	—	—	—	—
<i>Gaelic:</i>																	
Irish.....	—	—	—	—	—	—	—	—	—	—	—	—	676	—	—	—	—
Erse.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Albanian Branch</i> .....	984	—	—	—	—	—	—	—	—	—	19	—	—	101	—	—	—
<i>Indian Branch (Gypsy)<sup>11</sup>....</i>	—	7	—	81	33	—	1	—	2	—	5	8	—	—	—	—	—
<i>Armenian Branch</i> .....	—	—	—	23	—	—	—	—	—	—	34	—	—	—	—	—	—
<b>FINNO-UGRIC FAMILY</b>																	
<i>Hungarian Branch</i> .....	—	18	—	—	720	—	—	—	—	—	—	8,001	—	7	—	—	—
<i>Finnish Branch:</i>																	
Finnish.....	—	—	—	—	—	—	—	3,022	—	—	—	—	—	—	—	—	—
Estonian.....	—	—	—	—	—	—	1,000	—	—	—	—	—	—	—	4	—	—
Lapp.....	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—
<b>ALTAIC FAMILY</b>																	
<i>Southern Branch</i>																	
Turkish (Incl. Tatar).....	30	—	—	622	—	—	—	—	—	—	191	—	—	—	—	—	—
<b>BASQUE FAMILY</b>																	
Basque.....	—	—	—	—	—	—	—	—	100	—	—	—	—	—	—	—	—
<b>SEMITIC FAMILY</b>																	
Maltese.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nonindigenous & Unknown <sup>12</sup> ....	—	24	343	7	8	36	2	5	2,891	109	13	12	—	138	9	52	176
<b>Total Population.</b>	<b>1,064</b>	<b>6,760</b>	<b>8,092</b>	<b>6,078</b>	<b>14,730</b>	<b>3,575</b>	<b>1,126</b>	<b>3,381</b>	<b>41,835</b>	<b>65,219</b>	<b>6,205</b>	<b>8,688</b>	<b>2,968</b>	<b>41,177</b>	<b>1,900</b>	<b>2,170</b>	<b>7,936</b>

<sup>1</sup>As estimated in a special study.

<sup>2</sup>In the absence of a Danish linguistic census, the figure for German is that obtained for North Schleswig in the German census of 1910.

<sup>3</sup>Roughly after L. Tesnière in A. Meillet, *Les langues dans l'Europe nouvelle*, (Paris: Payot, 1928), 370-389. The dialect of Alsace-Lorraine is included under German.

<sup>4</sup>The German linguistic census covered only those areas having the indigenous or substantial linguistic minorities. The entire citizen population of the re-

maining areas was assumed to use German. Persons of "mixed" speech (e.g., bilinguals) were classified above according to the minority language used.

<sup>5</sup>The Irish linguistic census only distinguishes "Irish-speakers" (i.e., persons over three years of age reporting a knowledge of Gaelic, regardless of usual or mother tongue). The figure for Gaelic given above includes all reported Irish-speakers, thus doubtless including many persons customarily using English, plus 5.5 per cent of the children under age 3 (the proportion of the children aged 3 and 4 reported as Irish-speakers).

## and the Soviet Union About 1930

tries concerned: census figures are in roman type; figures estimated wholly or in part are given in italics)

Norway <sup>a</sup> 1930	Poland 1931	Portugal 1930	Rumania 1930	Spain <sup>b</sup> 1930	Sweden <sup>c</sup> 1930	Switzerland 1930	United Kingdom <sup>d</sup>			Yugoslavia <sup>e</sup> 1931	Miscellaneous <sup>f</sup>	Total Europe (Excl. Soviet Union)	Soviet Union 1926 ("Ethnic Nationality")	Total Europe (Incl. Soviet Union)	Language and Linguistic Groups
							England, Wales 1931	Scotland 1931	North- ern Ireland 1937						
—	139	—	451	—	—	—	—	—	—	25	—	1,030	77,791	78,821	INDO-EUROPEAN FAMILY Slavic Branch East Slavic: Russian Ukrainian White Russ'n
—	4,442	—	641	—	—	—	—	—	—	31	—	5,684	31,195	36,879	
—	1,697	—	—	—	—	—	—	—	—	—	—	1,721	4,739	6,460	West Slavic: Polish (Incl. Kaschub & Masurian)
—	21,993	9	38	—	—	—	—	—	—	18	14	22,716	782	23,498	Czechoslovak
—	38	—	43	—	—	—	—	—	—	138	—	10,142	27	10,169	Serbian (Wend)
—	—	—	—	—	—	—	—	—	—	—	—	57	—	57	South Slavic: Serbo-Croat
—	—	—	48	—	—	—	—	—	—	10,257	—	10,682	—	10,682	Bulgarian
—	—	—	364	—	—	—	—	—	—	73	22	5,754	111	5,865	Slovene
—	—	—	—	—	—	—	—	—	—	1,159	—	1,577	—	1,577	Germanic Branch West Germanic:
—	741	—	761	—	—	2,924	—	—	—	602	1,507	83,555	1,238	84,793	German
—	—	—	—	—	—	—	38,839	4,691	1,280	—	123	47,225	—	47,225	English
—	2,489	—	519	—	—	—	—	—	—	—	—	12,096	—	12,096	Dutch (Incl. Flemish)
—	—	—	—	—	—	—	—	—	—	—	29	3,486	2,600	6,086	Viddish
—	—	—	—	—	6,085	—	—	—	—	—	—	6,434	—	6,434	N'th Germanic: Swedish
—	—	—	—	—	—	—	—	—	—	—	—	3,503	—	3,503	Danish (Incl. Faroese)
2,758	—	—	—	—	—	—	—	—	—	—	—	2,759	—	2,759	Norwegian
—	—	—	—	—	—	—	—	—	—	—	—	109	—	109	Icelandic
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Latin Branch
—	—	—	—	—	—	242	—	—	—	15	44	40,489	—	40,489	Italian (Incl. Sardinian, Friulian, etc.)
—	—	—	—	—	—	831	—	—	—	—	72	40,248	—	40,248	French
—	—	—	—	15,565	—	—	—	—	—	—	24	15,701	—	15,701	Spanish (Incl. Ladino)
—	—	—	13,181	—	—	—	—	—	—	—	—	13,537	284	13,821	Rumanian (Incl. Vlach)
—	—	6,796	—	2,231	—	—	—	—	—	—	—	9,027	—	9,027	Portuguese
—	—	—	—	5,054	—	—	—	—	—	—	6	5,274	—	5,274	Catalan
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Romanche (Incl. Ladin)
—	—	—	21	—	—	44	—	—	—	—	71	61	214	61	Greek Branch
—	—	—	—	—	—	—	—	—	—	—	—	5,934	—	6,148	Baltic Branch
—	83	—	—	—	—	—	—	—	—	—	—	1,897	41	1,938	Lithuanian
—	—	—	—	—	—	—	—	—	—	—	—	1,409	151	1,560	Latvian
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Celtic Branch
—	—	—	—	—	—	—	954	—	—	—	—	954	—	954	Britannic: Welsh
—	—	—	—	—	—	—	—	—	—	—	—	1,000	—	1,000	Breton
—	—	—	—	—	—	—	—	—	—	—	—	676	—	676	Gaelic: Irish
—	—	—	—	—	—	—	—	—	—	—	—	136	—	136	Erse
—	—	—	4	—	—	—	—	—	—	—	—	524	—	1,632	Albanian Branch
—	—	—	101	30	1	—	—	—	—	—	—	323	61	384	Indian Branch (Gypsy) <sup>g</sup>
—	—	—	11	—	—	—	—	—	—	—	—	104	1,568	1,672	Armenian Branch
—	—	—	1,555	—	—	—	—	—	—	557	—	10,858	—	10,858	FINNO-UGRIC FAMILY Hungarian Branch
5	—	—	—	—	34	—	—	—	—	—	—	3,061	383	3,444	Finnish Branch
16	—	—	—	—	6	—	—	—	—	—	—	1,004	155	1,159	Estonian
—	—	—	—	—	—	—	—	—	—	—	—	25	2	27	Lapp
—	—	—	—	—	—	—	—	—	—	—	—	—	Others	Others	ALTAIC FAMILY
—	—	—	—	—	—	—	—	—	—	—	—	—	25,666	29,175	Southern Branch
—	—	—	288	—	—	—	—	—	—	180	1,066	2,377	—	—	Turkish (Incl. Tatar)
—	—	—	—	600	—	—	—	—	—	—	—	700	—	—	BASQUE FAMILY
—	—	—	—	—	—	—	—	—	—	—	—	188	—	—	SEMITIC FAMILY
—	244	—	—	—	—	—	—	—	—	—	—	188	—	—	Maltese
—	—	—	—	—	—	—	—	—	—	—	—	244	—	—	Hebrew
35	50	30	30	84	16	25	159	16	—	5	88	4,363	20	4,383	Nonindigenous & Unknown <sup>h</sup>
2,814	31,916	6,826	18,057	23,564	6,142	4,066	39,952	4,843	1,280	13,934	3,457	379,755 <sup>i</sup>	147,028	526,783 <sup>i</sup>	Total Population

<sup>a</sup>In the absence of an Italian linguistic census in 1931 the estimated linguistic minorities were derived from earlier Italian and Austrian censuses, the population changes to 1931 among the minorities being assumed to be proportional to that of the Italian population (Cf. Tesnière in Meillet, *op. cit.*, 397-403).

<sup>b</sup>Persons speaking Frisian are included in the Dutch total. Tesnière gives an estimate of 318,000 for Frisian as of 1926 in Meillet, *op. cit.*, 393.

<sup>c</sup>The Norwegian census distinguishes only Finnish and Lapp, the remaining citizen population being assumed to be of Norwegian speech.

<sup>d</sup>The estimated figure for Portuguese includes the region of Galicia, that for Catalan the regions of Catalonia, Valencia, and the Balearic Islands. The figures for Basque and Gypsy follow Tesnière in Meillet, *op. cit.*, 364-366.

<sup>e</sup>The Swedish census distinguishes only Finnish, Lapp, and (in 1920) Gypsy, the remaining citizen population being classified as Swedish-speaking.

<sup>f</sup>The British linguistic censuses distinguish only Welsh in Wales and Monmouthshire and Gaelic in Scotland. Welsh includes all reported "Welsh-speakers" (regardless of usual language) plus three-eighths of the children



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million people. The North Germanic group, the Scandinavian languages, claims smaller numbers, though it includes some of the most progressive peoples in the world.

Owing to the earlier crystallization of their national languages and to deviations in national development, the Germanic peoples are more sharply differentiated than the Slavic. The boundaries are clearer both territorially and linguistically. Both as cause and consequence the feeling of Germanic ethnic unity and consciousness of kind is less than among either the Slavic or the Latin peoples.

The third great group of languages in Europe is the Latin. The Latin peoples have been the chief bearers of European civilization from Roman to recent times and through most of that period have been the most numerous general ethnic group in Europe. But the last two or three centuries have witnessed a great shift in the weight of population to non-Latin peoples of Northern and Eastern Europe. Possessed of the ancient centers of European culture, the Latin peoples occupy a clearly defined land mass in Southwestern Europe, including France, the Walloon sections of Belgium, French and Italian Switzerland, Italy, and the Iberian Peninsula. Linguistic distinctions are largely a function of geography, the Alps being the effective boundary between Italian and French, the Pyrenees between French and the dialects of the Iberian Peninsula.<sup>10</sup> Outside of this land mass, there is the Latin island of Rumania, isolated for many centuries. A Latin language in its basic structure and vocabulary, Rumanian is heavily impregnated with Slavic words derived from Slavic infiltration and domination over a long historical epoch. Aside from Rumanian, however, the Latin peoples form a coherent entity with a strong consciousness of common heritage.<sup>11</sup>

The three major linguistic groups include nine-tenths of Europe's people living west of the Soviet Union and almost as large a proportion of Europe plus the Asiatic territories of the Soviet Union. The remaining fraction is composed of persons speaking languages once having a much wider distribution, or the precipitate of the innumerable wanderings that have left their sediment of Asiatic languages in the European continent.

Greek is the only tongue outside of the three great families mentioned that has performed the function of a great language of civilization. Very widely extended in the Hellenic period, Greek was all but obliterated later by the incursions of Albanians and Slavs from the north and by Turks and Arabs from the east and south. The Albanian invaders in Greece proper were effectively Hellenized<sup>12</sup> but the use of Greek is now chiefly restricted to the Greek peninsula and the fringes of the Aegean Sea. Beyond these remain only a few scattered colonies in Cyprus,

under age three living in the area covered. Likewise in Scotland Erse includes all persons reported as knowing Gaelic. All other British subjects in the United Kingdom are assumed to be of English speech.

<sup>10</sup>Estimates for 1931 were secured by assuming the same percentage distribution as was given in the linguistic census of 1921.

<sup>11</sup>Includes the following areas, with languages spoken, in thousands: Andorra (Catalan—6); Channel Islands (French—47, English—46); Danzig (German—388, Polish—14, Yiddish—1, Others—5); Gibraltar (Spanish—17, English—5); Iceland (Icelandic—109); Isle of Man (English—49); Liechtenstein (German—11); Luxembourg (German—257, Others—43); Malta (Maltese—188, Italian—30, English—23); Memel (German—83, Lithuanian—57, Yiddish—1, Others—1); Monaco (French—25); Saar (German—768); San Marino (Italian—13); Spitzbergen (Norwegian—1); Turkey in Europe (Turkish—1,066, Greek—71, Armenian—36, Yiddish—27, Bulgarian—22, Spanish—7, Others—39); and the Vatican (Italian—1).

<sup>14</sup>A number of Gypsies speaking Czech, Hungarian, and Rumanian are undoubtedly included in these totals owing to the fact that Gypsy is commonly given as an undifferentiated ethnic and linguistic group.

<sup>15</sup>If it were possible to allocate all groups listed on this line to their appropriate linguistic affiliation the side totals for certain languages would be somewhat larger. This is especially true of tongues spoken in countries of heavy emigration (e.g., Italian, Polish, and Spanish). At the same time, the processes of assimilation have sometimes resulted in the substitution of languages of the country of immigration (e.g., French) for the mother tongue of migrants; many of the latter are bilingual and are difficult to allocate properly to one language or another. Much the largest group of this type is in France. The major legal nationalities (not chief languages) of foreigners in France were Italian (808,000), Spanish (352,000), Belgian (254,000), Swiss (98,000), Russian (72,000), and German (72,000).

<sup>16</sup>Sums of horizontal totals; owing to rounding (to nearest thousands) the vertical and horizontal summations do not precisely coincide.

<sup>10</sup> There are minor exceptions. French, or more specifically Savoyard, speech laps over the Alps into the upper valley of the Aosta. Catalan is spoken on the French side of the Pyrenees in the old province of Roussillon.

<sup>11</sup> In addition there are a few scattered colonies of Spanish-speaking Jews and Rumanian- or Vlach-speaking shepherd peoples scattered through the Balkans, but these are not numerically important.

<sup>12</sup> Though there remain islands of Albanian speech in Central Greece and on the Peloponnesos, just as there remain islands of Greek (and Albanian) speech in southern Italy.

in Constantinople, and on the shores of the Black Sea. Though Greek influence in Eastern Europe is reflected in the wide distribution of the Orthodox religion, as a language Greek never paralleled Latin in its conquests of continental land masses.

Five other branches of Indo-European languages are spoken west of the Soviet Union: the Baltic, the Celtic, the Albanian, the Indian, and the Armenian. The first three are almost exclusively European, the last two chiefly non-European groups of languages. The Baltic group, commonly alleged to be closer to the original Indo-European languages than most, includes the two languages of Latvian and Lithuanian, spoken by about three and one-half million people on the eastern shore of the Baltic Sea. Until very recently these languages merely served as local idioms, the population of the towns being chiefly alien and the cultural life dominated by German and Russian influences.

The Celtic languages were apparently once widely extended in Europe but now have only a precarious foothold on the western fringes of the British Isles and the tip of the Breton peninsula in France. The Britannic wing of the Celtic languages, including Welsh and Breton, are each spoken by about a million persons, but generally bilingually with English and French. The Gaelic wing, including Irish and Scottish Gaelic, has retreated to the western peninsulas of Ireland and Scotland and is spoken by only some 800,000 persons, and this number only by virtue of the vigorous resuscitation of the Irish language as an accompaniment of Irish nationalism.

Albanian, too, apparently once had a larger geographical extent than its present corner in the Balkan mountains. Now spoken by only about 1.6 million people, the language is confined to the small territory of Albania and adjacent sections of Yugoslavia, the small islands of Albanian speech in Italy and Greece being evidence of wider use of the tongue in other epochs.

Persons of Indian speech (i.e., Gypsies) are widely disseminated through Europe but nowhere constitute an important share of the total. The language of the Gypsies suggests a fascinating history that has not been fully explored.<sup>13</sup> Armenian is scarcely an indigenous European language though some of the colonies in Southeastern Europe are of ancient origin.

The major non-Indo-European family of languages spoken west of the Soviet Union is the Finno-Ugric, comprising chiefly Hungarian and Finnish. The Magyar language derives from the speech of invaders that in the fourth century cut through Slavic territory as far as Rome and became established in the central Danubian plain. The vocabulary of modern Hungarian is largely derived from Latin, German, and Slavic tongues superimposed on the old grammar, which is the chief evidence of Hungarian relationship to languages spoken by widely scattered peoples in Finland and the Soviet Union.

The very wide dispersion of Finnic and related languages over the Russian plain suggests that they were once spoken over a much larger territory than at the present time, perhaps over the greater part of European Russia. The only large region of compact territory remaining to the group at the present time is in the Eastern Baltic. The chief language of the group is Finnish, spoken in Finland and in adjacent territories of Sweden and Soviet Karelia. The only other Finnic language of modern importance is Estonian, the boundaries of which correspond closely to the former national territory of Estonia.<sup>14</sup> Other Finnic languages on the periphery of the Finnish-Estonian central mass are living museum pieces. Such languages as Lapp, Ingrian, Votian, Vepsian, and Livonian, though of anthropological interest, are each spoken by only a few thousand persons and are of no political significance in the modern world. There are much

<sup>13</sup> There are also Gypsies of Rumanian, Hungarian, and Moravian speech.

<sup>14</sup> Aside from the small district of Petseri in the southeastern corner of the country.

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larger groups speaking Finno-Ugric languages in the Volga regions but these have no effective cultural connections with the Finns or the Hungarians at the present time.

The only remaining language spoken chiefly in Europe west of the Soviet Union is Basque, a speech apparently unrelated to any other language in the world. Perhaps once the language of the primitive people of the whole Iberian Peninsula, it is now restricted to a narrow belt of Spanish territory along the Bay of Biscay and a small section of adjacent territory in France. It is probably spoken by as many as 700 thousand people, but most Basques are bilingual with Spanish and French.

The remaining languages spoken in Europe west of the Soviet Union are not primarily European. The Turco-Tatar family of languages is represented by Turkish, spoken in Thrace and in important linguistic islands in the Balkan territories formerly ruled from Constantinople. The Semitic tongues are spoken in Malta (the Maltese idiom being an Arab dialect) and by some Jewish peoples (e.g., in Poland) attempting to revive ancient Hebrew.

Many other languages are spoken in the Soviet Union, nine of these by one million or more persons,<sup>15</sup> but none of these languages may be regarded as essentially European even though some are spoken chiefly in what is technically regarded as part of the European continent. In all, such languages include some thirty million located principally in the Caucasus and in Central Asia. Despite their great diversity, they comprise less than a fifth of the population of the Soviet Union.

The general ethnic backgrounds of European peoples as indicated by common linguistic origins have been of great importance in European affairs, especially as they relate to the three great branches of European speech—the Latin, the Germanic, and the Slavic. But a sense of common linguistic origins has not been sufficient to prevent the bitterest rivalries between nations of closely related but differing speech. Modern nationalism rests on the use of a single language intelligible to all and codified in a standard written language. Consequently, the use of a specific language, rather than the distribution of general linguistic groups, is the common criterion of nationality.

In the interwar period Russian emerged as the first language in Europe in the number using it as a means of ordinary speech. The Russians have been a prolific and rapidly expanding people who have carried their language with them to the far corners of the Soviet Union. Unlike all other Slavic languages, Russian has not been a minority language in recent times.<sup>16</sup> Throughout the modern period it has enjoyed the prestige of a language of government and administration. Under the Czars Russian was imposed on subject peoples as the language of law and the schools. Though the Soviet government has applied a much more liberal policy towards minorities, the prestige of Russian and its importance as the language of civilization has led to its continual spread among non-Russians. In particular, persons speaking Ukrainian dialects akin to Russian have increasingly reported themselves as of Russian ethnic nationality. At the outbreak of the Second World War there were 100 million Russian-speakers in Europe and the Soviet Union.<sup>17</sup>

The second language of Europe in its number of adherents is German. Up to the middle of the interwar period it was the first. During the nineteenth century German was expanding rapidly, both through the rapid natural increase of German populations and through the position of German as the language of administration in the Austrian and German Empires. Of the 85

<sup>15</sup> Uzbek—4.8 millions, Tatar—4.3, Kazak—3.1, Azerbaidjan—2.3, Georgian—2.2, Armenian—2.2, Mordovian—1.5, Chuvash—1.4, and Tadzik—1.2. The figures technically relate to "nationalities" reported in the 1939 census.

<sup>16</sup> The "Russian" minorities of interwar Rumania, Poland, and Czechoslovakia were almost entirely of White Russian and Ukrainian speech. Only in Estonia and Latvia did the boundary of Russian speech slightly overlap the political boundaries.

<sup>17</sup> Cf. below, Table 18.

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million German-speakers, 65 million lived in the boundaries of the Weimar Republic. But on almost all sides the German linguistic boundary lapped over the political frontier, leaving many German-speakers outside the Reich. In addition, German linguistic islands were to be found in almost every Eastern European country, the residue of ambitious colonization over several centuries. In the Baltic countries were to be found the descendants of the Teutonic knights. German communities descended from settlement schemes of Austria-Hungary were widely dispersed in Polish Galicia, in Slovakia, in Hungary, in Transylvania, and in the Batschka and Banat regions of Yugoslavia and Rumania. Beyond, in the territory of Czarist Russia, German colonists were located in Wolhynia, in Bessarabia, in the Ukrainian steppes, and especially in the Central Volga, where there were over a million German-speakers, and an autonomous German republic. German-speakers living outside the Reich included six and one-half million Austrians, three million German Swiss, 3.3 million Sudetens in Czechoslovakia, about 1.4 million in Alsace-Lorraine, 1.2 million in the U.S.S.R., three-quarters million each in Poland and Rumania, about half a million each in Hungary and Yugoslavia, and lesser numbers in Danzig, Luxemburg, Italy, Denmark, and the Baltic countries.

In the interwar period German-speakers were more politically divided than any of the other first five languages of Europe. Of the others only the Italians had a significant minority living outside its political borders (i.e., in Corsica). In view of the position of German as the language of the largest ethnic group west of the Soviet Union this situation inevitably led to political stresses in the interwar years.

English, spoken by close to 50 million at the outbreak of war, was, of course, wholly confined to the British Isles as a native language. Italian and French were spoken by about equal numbers, each somewhat in excess of 40 million. With two unimportant exceptions<sup>18</sup> there were no French minorities in Europe, though there were large French-speaking populations in Belgium and Switzerland whose language holds equal status with those of other elements in these multi-lingual countries.

The first five languages include those that have played an important international role in Europe. One should have supposed that five such varied languages would have provided ample scope for rich variation of expression within a great civilization. But these languages together are the native tongues of less than three-fifths of the population of Europe west of the Soviet Union. The remainder speak a Babel of tongues, almost all trying to establish themselves or to hold their positions as languages of civilization and as cultural expressions of national sentiment. Some were languages of established history and literature spoken by many millions of people. Others were "made" languages, revived and resuscitated to suit the purposes of emergent nationalism.

Two related Slavic languages, Ukrainian and Polish, stand next to the chief languages of the great powers in the number of speakers. Some 37 million Ukrainian-speakers in the interwar period were scattered among four countries. Until quite recently the Ukrainian language has not been the focus of a strong nationalism. In the interwar period the bulk of the Ukrainians were in the Soviet Union, but there were at least four and a half million in Poland, and six hundred thousand each in Czechoslovakia (Carpathian Russia) and Rumania (Bucovina and Bessarabia). Polish-speakers numbered 20-25 millions, most of whom were included in the enlarged Poland of the interwar period. But there were at least half a million Polish-

<sup>18</sup> The Norman-speaking inhabitants of the Channel Islands and the few thousand Savoyards and Provencaux living in the upper valley of the Aosta and in a few square kilometers of Italian territory on the French side of the Alps.

speakers in adjacent German territories and as many more in scattered linguistic islands of Poles in White Russia and the Ukraine.

There were six languages native to between 10 and 20 million persons—Spanish, Rumanian, Dutch-Flemish, Hungarian, Serbo-Croat, and Czechoslovak. There were seven more spoken by from 5 to 10 million adherents—Portuguese, White Russian, Yiddish, Swedish, Greek, Bulgarian, and Catalan, a virtual anarchy of tongues in themselves.<sup>19</sup> But beyond were nine languages spoken by one to five million persons—Danish, Finnish, Norwegian, Turkish, Lithuanian, Albanian, Latvian, Estonian, and Breton, not to mention as many more in this size group spoken by the peoples of the Soviet Union.<sup>20</sup> With the exception of Breton all of these were national languages, each cherished by an ardent patriotism and vigorous protagonism for its use. And even this of course does not exhaust the list of European languages. From languages like Welsh and Irish and Basque spoken by several hundred thousand, the roster runs down to the tiny fragments of ancient speech to be found in many corners of Europe, now spoken by only a few thousand or even only a few hundred persons—such languages as Ladin, Lapp, and Livonian. Merely to list the languages of the Soviet Union spoken by less than a million persons requires a page of small print. Europe is a colossal potpourri of diverse languages, a fact which adds more confusion than richness to her civilization.

The linguistic anarchy of the continent is further complicated by the hopeless territorial mixture of languages in defiance of geographical and political boundaries, a mixture that has led to the existence of indigenous linguistic minorities in almost every European country. Few problems have proved the source of more political vexation than the question of linguistic minorities.

Linguistic minorities are commonly lumped together as a "problem" but these minorities differ enormously in political and linguistic importance. They vary in such importance with their size, with the character of the linguistic difference setting off majority from minority (e.g., whether closely related or unrelated languages), with the degree of general cultural assimilation (e.g., as evidenced by bilingualism), in geographical location (e.g., are the minorities compactly settled or scattered?), and in the degree of conscious identification with languages and ethnic groups dominant outside the national boundaries.

### *The Major Linguistic Regions of Europe*

Keeping these considerations in mind, it would be possible to analyze minorities and minority problems and to classify specific minorities in accordance with a conceptual framework so derived. Such an enterprise is necessarily beyond the scope of the present work. It is possible, however, to indicate in a relatively short space the three major linguistic regions of Europe in these regards, each of which faces quite different problems with regard to linguistic minorities. These three regions are: (1) Western Europe (2) Eastern Europe and (3) the Soviet Union.

(1) West of a line drawn across Europe roughly from Danzig to Trieste there has been

<sup>19</sup> The rank order and numerical importance of the languages is obviously affected by the system of grouping. If Catalan were included with Spanish the combined figure would exceed 20 millions. Rumanian is slightly inflated by the inclusion of Vlach and Aroumanian peoples scattered through the Balkan peninsula. The inclusion of Flemish with Dutch despite political separation is based on the absence of significant linguistic difference and places Dutch in a higher category (there were well over 4 million Flemish-speakers in Belgium and France). Serbo-Croat and Czechoslovak attain the 10 million figure by virtue of the inclusion in the national language of idioms (i.e., Bulgarian and Macedonian in Yugoslavia, Slovak in Czechoslovakia) that are commonly claimed by the people themselves to be separate languages. Portuguese is enlarged by the inclusion of the Gallegan dialect spoken in Spanish Galicia. Yiddish was assumed to be the language of Jews where ethnic group and not language was the basis of census classification. Bulgarian-speakers would be listed as much more numerous if Macedonian and other allied dialects spoken in Yugoslav territory were included.

<sup>20</sup> In order of numerical importance: Uzbek, Tatar, Kazak, Azerbaidjan, Georgian, Armenian, Mordovian, Chuvash, and Tadzik.

in each country a well-established and accepted language of culture, fixed by a long tradition, recognized by the state, and usually enjoying the prestige of a great literature. It is unchallenged in its prestige and authority within the national boundaries.

The existence of a firmly established and uncontested national language does not conflict with the fact that there are wide margins of linguistic variation in every country, especially in the spoken language. To a greater or less extent these symbolize local, as opposed to national, cultural traditions. The strength of the local dialects is one measure of the extent to which local sentiments have resisted submergence.

Thus, it is true, in the United Kingdom the spoken language runs the gamut from the inelegant cockney of London to the picturesque Scottish burr and Irish brogue. In France Savoyard and Provençal continue as spoken languages despite the unquestioned supremacy of Parisian French as a literary language. In Italy the *lingua toscana in bocca romana* must compete with the Sardinian and Lombard dialects and such variants as Friulian and Ladin that are commonly classified as separate languages. In Germany the traditional love of the *Heimat* has been expressed in the tenacious adherence to a great range of local dialects within the customarily distinguished "high" and "low" German speech. Even in small and long-integrated countries there are significant linguistic deviants. In the Netherlands, for example, the Frisian variant is still the spoken language of many thousands in Friesland and the Frisian Islands. In Sweden the Scanian dialect of the South and the Gottish dialect of the island of Gotland have resisted the domination of the modern literary language. But none of these deviations have in recent times challenged the official national language, usually crystallized through centuries of established usage. In Western and Southern Europe the question of which among the related dialects and languages shall be the dominant one has generally been settled and is no longer a real political issue.<sup>21</sup>

Minorities do, of course, exist in Western Europe, and there are two multilingual states. But these scarcely violate the general rule of a firmly established national cultural language. Thus, there are a number of local languages, such as Basque and the various Celtic languages (Welsh, Breton, Scottish Gaelic, and Irish).<sup>22</sup> With the exception of Irish these linguistic groups present no real challenge to the dominant national languages and have served only as a home language, without significant literature. Aside from Irish they do not express national sentiments differing from those of the dominant languages. Individual separatists may be found among the Bretons and the Welsh, but linguistic rivalry rarely goes beyond the level of disputes regarding the appropriate medium for elementary schooling. Irish enjoys the peculiar status of being a minority (and almost extinct literary) language being revived for nationalistic purposes. It is the one case in modern Europe in which it is the official policy to encourage a minority language at the expense of the native language of the great majority of the inhabitants. But this official encouragement has not yet seriously contested the general use of English for commercial, cultural, and even governmental purposes.<sup>23</sup>

<sup>21</sup> The two exceptions are those of Spain and Norway. In Spain the Catalonian dialect has striven for survival against the domination of Castilian, and because of the greater material advances made in Catalonia as compared with the rest of Spain the question of Catalonian separatism has been an active ingredient in the turbulence of Spanish politics. In Norway there is conflict in the written language between the *Riksmål* (the formal language, closely allied to Danish) and the *Landsmal* (the language of the people), but this conflict of dialects could hardly be regarded as a dangerous political issue.

<sup>22</sup> To this list one might add the language of the Lapps in Northern Scandinavia, Romanche in Switzerland, and the Slavic speech of the Wends in Prussia.

<sup>23</sup> Prior to its revival and teaching in the schools the Gaelic idiom had retreated to the most isolated and backward western fringes of the island. During the interwar period the revival was partially successful, as measured by the fact that persons "knowing" (i.e., who said they knew) Irish increased from 19.3 to 23.7 per cent of the population over age 3 in the interval between the censuses of 1926 and 1936. But the artificiality of the revival is indicated by

Linguistic minorities arising from the overlapping of languages over political boundaries are now rather rare in Western Europe and where they exist generally involve populations speaking closely related languages. Where the linguistic differences are not too great to be bridged by the gradual substitution of a literary language for a kindred dialect such discrepancies between linguistic and political frontiers have not been serious. Thus along the Spanish and Italian frontiers of France there are a number of linguistic overlappings. These have been the subject of some political demands for border rectification in the Italian case (e.g., in Italian claims for Nice) and the French counter-claims for minor Savoyard and Provençal-speaking areas for historical and geographical reasons included in Italy. Some of these are being granted to France by the new peace treaty. But the temper of the conflict on this issue may be contrasted with the violence of emotions raised over the question of Trieste and Istria, where the conflict is between two very different ethnic groups.

The two multilingual states of Western Europe, Belgium and Switzerland, differ from the others in their maintenance of more than one official language, but not to the extent that they do not have clearly defined national languages. In both countries the linguistic boundaries are generally clearly defined, with no urban-rural struggle of divergent tongues. In Switzerland only three of the 25 cantons are truly bilingual—Bern, Fribourg, and Valais—and throughout there is a clear line between the French- and German-speaking zones, the Italian-speaking canton of Ticino being effectively separated from the others by geography. In Belgium the boundary between Flemish and Walloon is as sharply marked—only in Brussels are the two extensively intermingled.<sup>24</sup> Even in Alsace-Lorraine, which has proved to be such a troublesome bone of contention, the line between the French and Germanic speech is clearly defined, there being no mixture of villages of different speech. Nor are there linguistic islands such as dot Eastern Europe from the Baltic to the Mediterranean.

(2) By contrast with the firmly entrenched national languages of the West, most of which could claim the dignity of being state languages for hundreds of years, there was no national language of Eastern Europe up to the borders of the Soviet Union that could claim a consecutive history as a state language for more than a century prior to the interwar period.<sup>25</sup> Most Eastern European languages are symbols of nationalistic movements of late nineteenth and even twentieth century origin; a majority of them had never been the official language of a political state prior to 1919. A few had glorious literary and historical traditions; but the bulk were local languages with no recent literary tradition of consequence.

Because most of the national languages in Eastern Europe had so recently achieved political ascendancy, conflict was inevitably sharp between the majorities speaking these new national tongues struggling for security and the linguistic minorities representing the old ruling groups. These antagonisms were further sharpened by the impossibility of drawing national boundaries so as to eliminate all minorities. As compared with Western Europe, the linguistic map of Eastern Europe is hopelessly confused; in most cases clear linguistic boundaries were almost completely absent. In Transylvania, in the Banat, in the Batschka, and in many other smaller regions, villages of different languages were mixed indiscriminately in a complex mosaic of popular speech. It was not uncommon to have three or more languages involved within a relatively small area. Linguistic islands, especially of Germans, were to be found in almost every Eastern European country, often far removed from the area of compact linguistic settle-

the fact that only 5.5 per cent of the children 3-4 years old (i.e., of pre-school age) were reported as knowing the language in 1936. In other words the home language of 95 per cent of the population apparently was English.

<sup>24</sup> Though owing to its prestige and wider intelligibility French is in common usage for public purposes in predominantly Flemish-speaking regions.

<sup>25</sup> Unless Austrian (i.e., German) is included as Eastern European.

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ment from which they were originally drawn. Eastern Europe was a linguistic hodge-podge. Political conflict was unavoidable as long as language stood as the symbol of communal and national solidarity. At the same time, of the dozen odd official languages used in the area none could properly lay claim to being a language of culture and civilization comparable to Russian or to the major Western European tongues.

(3) The Soviet Union is clearly distinguished from the other two regions discussed in that there is one dominant language, to all intents and purposes unrivalled despite the fact that no less than 175 linguistic groups were officially recognized (e.g., in the Soviet census of 1926). Russian is the one language of Eastern Europe that has been continuously identified with a great state over a period of centuries. It was the official language of the Russian Empire, under which other tongues were subjected to pressure towards assimilation; but it has shown perhaps even more vitality and growth in the Soviet Union, which adopted a much more lenient policy towards linguistic minorities. Dozens of ethnic groups as demarcated by language have been given recognition in the political structure of autonomous republics and regions, with the frequent privilege of primary instruction and subsidized publications in the local languages. Nevertheless Russian is the language of culture and urban life throughout the Soviet Union.

Leaving aside the predominance of Russian as the unchallenged language of civilization, the linguistic situation of the Soviet Union has many of the characteristics of the linguistic mosaic in Eastern Europe, in some cases even magnified. But since all share one political allegiance, and the unifying influence of a single universal medium of verbal exchange in Great Russian, many of the acute problems of linguistic minorities simply do not exist in the U.S.S.R.

At the same time it is easy to exaggerate the linguistic and ethnic diversity of the Soviet Union. Over half of the population uses Russian as its mother tongue and a substantial proportion of the remainder know and use the language readily. With Ukrainian and White Russian, which are Slavic languages closely akin to Great Russian, the Slavic group includes well over three-fourths of the total population in the interwar period. No non-Slavic language was spoken by more than three per cent of the population, so that there was no non-Slavic group of sufficient size to remotely challenge the numerical predominance of the Slavic-speaking elements.

During the interwar period the predominance of Great Russian in the Soviet Union appears to have increased (cf. Table 18). Though the definitions of ethnic nationality applied in the two interwar censuses of 1926 and 1939 are not identical and may have to some extent biased the figures, it is apparent that Russian was making rapid headway. Russian is given as the

TABLE 18  
Population of the U.S.S.R. by Nationality (1939)<sup>1</sup> as Compared  
with Ethnic Groups (1926)

Total	Ethnic Group (1926) in Thousands	Nationality (1939) in Thousands	Ratio of 1939 to 1926	Per Cent of Total	
				1926	1939
Great Russian	77,791	99,020	1.27	52.9	58.1
Ukrainian	31,195	28,070	.90	21.2	16.5
Belorussian	4,739	5,267	1.11	3.2	3.1
Total East Slav	113,725	132,357	1.16	77.3	77.6
U.S.S.R.	147,028	170,467	1.16	100.00	100.00

<sup>1</sup> Omitting data for certain northern Asiatic territories with a population of less than a million. Percentages for 1939 are computed in relation to the total population.



"nationality" of 58.1 per cent of the population in 1939 as compared with 52.9 in 1926. The enormous increase of Russians in the twelve-year intercensal period obviously could not have resulted from natural increase alone, but also must reflect the absorption of other groups, especially of Ukrainians, who, according to the census data declined several millions in the intercensal period despite a high rate of natural increase.<sup>26</sup>

This reduction of ethnic (and presumably linguistic) diversity in the Soviet Union does not detract from the fact that the region is the only one considered that has found a reasonable adjustment to the problems of linguistic and ethnic minorities. It has effected the best compromise between unity and diversity in these matters achieved on the European continent.

Thus there was a Western Europe with several established languages of civilization, fixed linguistic boundaries, and national tongues firmly entrenched over centuries of association with political authority. There was an Eastern Europe with a linguistic hodge-podge of local languages, ill-defined linguistic frontiers, and national languages new to political authority and official prestige. Finally there was the Soviet Union, even more prolific of languages than the remainder of Europe, but with one and only one established language of civilization.

#### *Changes in Linguistic Distribution*

The different linguistic situation of the three major regions of Europe naturally reflects a long historical evolution in the development of European languages. This historical evolution has been modified by the expanding communication facilities of the modern world, and especially by the catastrophes of two world wars. But this evolution is not without pattern and direction, evolutionary developments often being not shattered but sped on their way by the disruption of war.

It will be apparent that the linguistic situation in each of the several European countries is related to the degree of social and economic development, and that the three linguistic regions of Europe roughly coincide with the demographic regions to which much attention has been given in preceding chapters. The chief difference lies in the fact that the countries of Southern Europe are comparable linguistically to the Northwest and Central European countries, whereas in terms of social and economic indices they occupy an intermediate position between the latter countries and Eastern Europe.

Just as Western Europe has been the center of diffusion of material progress, so has it also been the birthplace of nationalism and the national state. An important aspect of this has been the development of the national language as a universal and fixed means of communication for all those claiming ethnic affinity. The national state over-rides local political loyalties; the national language likewise vanquishes the local *patois* and establishes itself as the sole recognized medium of written communication. The law, the school, and the army all serve to establish uniformity in both the spoken and the written word. The development of science and technology requires the development of a large measure of verbal uniformity within the language. Public information, newspapers, radio, commerce, and other attributes of the modern world tend to establish uniform standards. The centralizing forces dissolve the *patois* along with other local customs. In the use of language, as in other forms of public activity, the rational replaces the traditional. Especially important is the development of the public school with its emphasis on uniformity of usage. "The language of the school is the language of the future." Any country of high literacy is almost by definition one of crystallized national language.

The earlier crystallization of national languages and of national feeling in the West is

<sup>26</sup> A full description of ethnic composition of the Soviet Union in 1926 and in 1939 (in so far as available) is given in another volume in this series: Frank Lorimer, *The Population of the Soviet Union* (Geneva: League of Nations, 1946), Chapter V and pp. 137-140.

responsible for the clear linguistic boundaries and unchallenged national languages of that region. It also explains many aspects of the linguistic development of Europe as a whole.

An almost universal accompaniment of the development of nationalism has been a desire for expansion of the national territory. Viewed from the point of view of linguistic affiliation in Europe this has meant a constant outward pressure historically from Western Europe, because it was in this region that modern forms of nationalism first took root. Modern history gives numerous illustrations of the capacity of a nationally conscious people to absorb less nationally minded neighbors, especially when, as has usually been the case, nationalism itself is accompanied by material progress. But like the disease that it is, nationalism is contagious. The exercise of nationalistic aggression tends to provoke new counter-nationalism on the part of the intended victims. In Europe the thread of spreading nationalism from its original centers in Western Europe to almost the entire continent is at the core of much of European political history. It explains many of the linguistic minority problems in Europe today.

The first European nation in the modern sense was the French nation. The prestige of France, her leadership in the world of arts and letters, and her large, advanced population naturally led to the wide use of French as the language of culture and diplomacy. It is one of the greatest tragedies of Europe that French, like its predecessor Latin, failed to become the literary language of the European masses or even of the bourgeoisie. Instead French nationalism and its democratic ideology provoked the development of offsetting nationalism among its neighbors. It has been rightly said that Napoleon was unwittingly the father of German nationalism.

The national self-consciousness, the technical superiority, and the material advancement of Western European peoples have led to the expansion of their languages at the expense of less developed peoples further removed from the centers of modern European civilization. This has been observable on every hand, from the Baltic to the Mediterranean. Thus there were extensive Swedish settlements in Finland which resulted in a retreat of the Finnish language and the establishment of Swedish as the language of civilization in the area. Historically the pressure of the Germans on the Baltic peoples and the Poles resulted in major linguistic retreats of the latter in language (though not in race, Eastern Germans being commonly Teutonized Slavs). German colonies were set down in all parts of Eastern Europe, and in the Austro-Hungarian Empire German was the first language of government and commerce.

But as in the French case, nationalism proved catching. It was gradually absorbed by peoples further east, and especially by those subjected to pressure by the Germans and Austrians. Thus Hungarian, Polish, and Czech nationalisms were effectively aroused by the middle of the 19th century. Hungarians and Poles, even within the bounds of the Austro-Hungarian Empire, actively resisted the infiltration of German into their linguistic areas. Before the First World War German was already in retreat in Hungary and in Galicia, and had ceased to make headway in German Poland except where, as in Silesia, it was reenforced by industrialization and the immigration of German-speakers. Likewise in Bohemia-Moravia even under Austrian administration German was in retreat except in regions of German in-migration.

At the same time that Polish and Hungarian were becoming increasingly successful in resisting further incursions of German they were also actively absorbing un-national peoples further east. Before the First World War Polish was rapidly gaining in Galicia at the expense of Ukrainian, notably in the towns; and Hungarian was being thrust upon Slovaks, Rumanians, and Yugoslavs.

Thus there was generally Western infiltration in layers with a common discordance of rural and urban idioms. In the West the national languages were in most cases the language of the capital cities diffused over centuries to the remainder of the territory speaking allied dialects.

In the East it was common to have completely different languages in the towns from those of the rural hinterlands, languages imported by the bearers of alien culture and political domination.

Already before the First World War there were many evidences of reaction to pressure from the West. In the Baltic regions the Swedish and German languages were in retreat and the idiom of a shrinking minority of predominantly urban peoples. Vigorous German efforts at assimilation in German Poland were being effectively countered by the Poles. As noted above the German language was the usual language of a falling proportion of the population in Polish Galicia. The German colonies throughout Eastern Europe were declining proportions of the total populations in the countries where they lay. Only as over against relatively small and as yet incoherent minorities, such as the Slovenes of Styria and Carinthia, was the German language still advancing in the countryside of Eastern Europe.

The First World War resulted in the raising of most of the local languages of Eastern Europe to nationhood. This represented a democratic triumph of the right of self-determination; in linguistic terms it meant the establishment of the language of the majority as the national language. With the sanction of political authority and its institution as the language of instruction and higher culture all of the new national languages of Eastern Europe made gains as over against linguistic minorities within their national territories. Before they had the strength that comes from having roots in the soil, and, as predominantly rural and peasant peoples, higher birth rates than alien and more urban elements. Now these tendencies were re-enforced by all the prestige of official sanction and use. In the face of this circumstance linguistic groups representing the old ruling elements retreated, in many cases the minorities being further weakened by emigration of some of their numbers to countries where their languages remained dominant.

Whatever may be said regarding the value of democratic self-determination in Eastern Europe it is apparent that the revival of local languages for nationalistic purposes has greatly complicated the linguistic problems of Europe. Linguistic parcellation goes directly counter to the tendencies of modern civilization towards universality and unity.

Interwar Europe saw the crystallization of national languages in almost all territories west of the Soviet Union. Growing literacy and the constantly increasing importance of the written word have tended to freeze groups in the use of one language or another, whereas before bilingualism and a shift from one language to another was relatively easily and painlessly effected.

The growing rigidity of linguistic and ethnic minorities has led to increasingly drastic efforts at solving minority problems. Formerly it was considered sufficient to control the medium of public education. But the interwar period saw the extension of much more violent solutions, as, for instance, in the inhuman mass deportations of persons from their centuries-old ancestral homes. During and after World War II this technique was generalized by both sides in the conflict. The final and logical (if inhuman) step was taken by the Germans in the case of the Jews—outright extermination. Only in the Soviet Union and in some corners of Western Europe are peaceful cooperation and assimilation still regarded as the logical solution for problems of ethnic diversity.

## CHAPTER XI

### EUROPE'S POPULATION IN A CHANGING WORLD

IN this volume an attempt has been made to evaluate the human resources of the European continent. In this effort heavy reliance has been placed on the objective statistical evidence incorporated in the census and vital statistics of the several European countries during the interwar years. Unmistakable patterns emerge from this evidence and it is clear that there were underlying and persistent trends of the greatest significance for the future of Europe. It is the purpose of this final chapter to review some of the basic findings and to venture some conclusions regarding their implications for the postwar world.

The inventory of European human resources logically begins with consideration of the distribution of the population over the surface of the continent. An inspection of this distribution reveals a continental pattern developed over a long history and largely independent of national boundaries. The great centers of European population in the interwar period formed a coherent cluster in the West with a basic Atlantic orientation. The center of population gravity lay in an area enclosing London, the dense agglomerations of Belgium, and the industrial heart of the continent in the Ruhr. From this center there were two major axes of dense settlement, the one reaching out across Germany to Saxony, Silesia, and beyond, the other extending up the Rhine and leaping the Alps to include Northern Italy. From this central nucleus the densities of population and the degree of urbanization receded with increasing distance in every direction.

The great urban concentrations of Northwestern Europe are clearly a function of the fact that the processes of industrialization first took foothold in this region. Their predominant weight in the distribution of the European population is therefore a creation of the modern era. Through most of its early history the population of Europe had a Mediterranean orientation, in which the chief population clusters and areas of dense settlement were to be found in the countries bordering that sea. France's leadership in Europe, however, brought a northward movement in the centers of the European human constellation. Through much of the modern period France led Europe in the degree of her material welfare and in the size and density of her population.

The agricultural and industrial revolutions in Western Europe, aided and abetted by the exploitation of the New World, produced a vast increase in the material resources available to the population. This in turn made possible the greatest growth of population in European history, and an expansion unmatched in the history of the world. England, the birthplace of the industrial revolution, more than tripled its population in the nineteenth century and in addition provided a steady flow of population to the United States and to the British possessions overseas. All of the Northern countries more than doubled their populations in the same period. The repercussions were felt as far away as Russia, which through contact with the West gained the military means to enlarge her empire and to settle great regions formerly left to warlike migratory and pastoral peoples. In the East population growth was a function of new or intensified agricultural settlement of thinly peopled regions, not of the direct effects of industrialization. Nevertheless, growth was large, and indirectly dependent (as was settlement in the New World) on the economic and commercial development of Western Europe.

Population growth was much slower in the older centers of European civilization in France and the Mediterranean countries. But in Europe as a whole the expansion of population in the last century and a half has been enormous. Despite wars and other catastrophes the population

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of Europe in 1940 was some 350 million larger than in 1800, without including the tens of millions of Europeans that have found their way overseas. Since 1900 alone there had been a growth of 140 million. Population increase on such a scale was clearly a unique event in European history, and could not continue indefinitely.

### *Europe in Demographic Transition*

In the interwar period it became apparent that the enormous biological expansion of the European continent west of Russia was not destined to continue. The inertia of past growth (as reflected in the young age distribution of most European populations) resulted in the continuation of growth in the 'twenties and 'thirties. No less than 90-100 million persons were added to Europe's population in those two decades, and these gains completely overshadow the absolute losses of population suffered in the Second World War. But the pace of growth was slackening; it was evident that in the wake of the industrial revolution had come a vital revolution by which the fundamental factors affecting population growth have been basically changed.

The essence of the vital revolution is the transition from primitive conditions of wasteful mortality and reckless procreation to a new balance of low death rates and controlled fertility. The enormous expansion of the population in Europe was a function of the fact that declines in death rates preceded those in birth rates. The slackened growth and the prospect of a new kind of population stability has resulted from declines in fertility outstripping those in the death rate.

The reduction of the death rate is most obviously associated with the progress made in productive techniques and the consequent larger supply of goods available to consumers. Better diet, better housing, better clothing, etc., all contributed to the support of vastly increased numbers of Europeans. At the same time the general rise in the levels of living as a preserver of life was greatly strengthened by advances in medical science and practice. Less obvious, but equally important, has been the role of the modern state. No earlier form of government can compare with it as a provider of public safety, as a guardian against epidemic and disease, and in its interest in the general education and material welfare of its citizens.

Since the saving of life is a universal value, peacetime reductions in mortality have proceeded in an orderly manner both within countries and as between the major regions of Europe. The major determinants of health gains—advances in education, rising levels of living, medical discoveries and their application in public health programs, even the essential ingredient of internal political stability and order—have proceeded slowly because they are based on human behavior in the mass, with its restraining inertia of old practices, customs, and attitudes that resist change. The bonds of traditional ways of doing things are not easily broken. This is illustrated by the Communist Revolution which, despite a rigorous health program, was only slowly able to change the health habits of the Russian people. Despite a generation of great effort and progress before the war, the Soviet Union still had mortality conditions well below the European average.

At the same time, aside from the scourges of war and internal disorder, every country in Europe was making important strides in the reduction of deaths. The interwar period saw significant gains in every corner of the continent. If the "cake of custom" proved a barrier to strikingly different gains in the saving of life among the several countries, it is also true that the forces bringing about reduction in mortality had the strength of an inertia springing from the universal desire to survive. In Europe as a whole the interwar period was one of substantial progress in all areas, but with great differences in the absolute levels of attainment deriving from historical differences in the time at which progress first began.

Until the last few decades birth rates in Europe have generally been high. Under the mortality conditions prevalent a few generations ago, and for countless generations before that, life and death seemed to run a close race, in which life maintained a perilous lead constantly menaced by the hazards of famine, disease, and war. The full animal fecundity of the human being seemed called upon to match the forces constantly decimating the race. It is not surprising that European (and almost every other extant) society has developed strong mores favoring high fertility.

The great gains in peacetime mortality and the rapid growth of population in modern Europe reasonably led to some modification of the attitudes towards unrestricted procreation. Recognition of the achievements in reducing the spoilage and waste of preventable deaths found an understandable corollary in new attitudes towards reckless creation of human life. In recent years these attitudes have been reflected in the practice of abortion and contraception and in a decline in the birth rate directly related to the extent of such practices. For the fall of the birth rate in Europe is probably no more a function of increased biological sterility than is the fall of the death rate a measure of greater inherited vitality. Both reflect changing cultural practices, the latter directed at preserving life and the former at curtailing its irresponsible creation.

The fall of the birth rate came later than that of the death rate because the control of births encountered far more cultural barriers than the control of deaths. Firstly, new methods for eliminating disease and postponing death are supported by the universal value placed on survival. By contrast, the practices of abortion and contraception flaunt and defy very deeply rooted mores favoring the perpetuation of the race. Secondly, gains in levels of health may be achieved without active cooperation on the part of large sections of the population. Thus public health efforts of the government (in the provision of a sanitary water supply, in the inspection of foods, etc.) may protect the lives of many individuals without either their knowledge or their participation. By contrast, the control of births is a peculiarly individual matter requiring strong personal motivation.

The individual psychological motivations that have induced the mass of Europeans to resort to the restriction of fecundity are extremely complex. They derive from the economic handicaps, the physical difficulties, and the social inconveniences of large families in contemporary urban society. These have been discussed at greater length in Chapter IV. But for whatever reason it is clear that a high proportion of Europeans were voluntarily restricting births in the interwar period and that the proportion was rising. There was a universal decline in fertility in the interwar period, and in the countries of more advanced demographic evolution the fall of the birth rate was more precipitous than that of the death rate. As a result the margin of natural increase was falling, and much of Northwestern and Central Europe was approaching the point at which deaths would exceed births and the population would commence to decline.

In fact the populations of most of the countries in this region were not replacing themselves in much of the interwar period. More refined measures of replacement than the rate of natural increase, such as the reproduction rates, clearly indicated that with the continuation of interwar fertility and mortality rates the population would inevitably decline. In several countries fertility was so low that even the elimination of all deaths prior to age 50 would not suffice for permanent replacement of the population with the then existing levels of fertility.

With the economic recovery of the late 'thirties there was some parallel recovery in the birth rates of countries of low fertility, chiefly as the result of new marriages. Further declines in fertility in Eastern and Southern Europe (aside from the Soviet Union) brought about some equalization of regional differences. But the basic regional differentials remained. Two major developments were implicit in the demographic position of Europe in the interwar period:

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(1) With its perpetuation the population of Europe would ultimately stop growing and would commence an accelerating decline.

(2) The different stages of demographic development existing in the several regions of Europe postulated a major shift in weight of population towards the peripheries and especially to Eastern sections of the continent.

The vital trends of the interwar period inevitably gave rise to concern, especially in Western Europe, where the course of the vital revolution had carried fertility below the level of replacement. No population can be expected to observe the prospect of its own extinction with equanimity and unconcern.

Because the true underlying trends were masked by favorable age distributions and continued population growth, they did not capture the popular imagination and interest until the vital revolution was far advanced. This interest did not reach the level of significant political action before the middle of the interwar period, and aside from those of Germany and the Soviet Union, no comprehensive population policies went into effect sufficiently long before the war to have a decisive influence on interwar trends.<sup>1</sup>

Nevertheless, the population policies introduced in the interwar period may be regarded as the forerunners of even more comprehensive pronatalist campaigns in the coming years. New population policies are appearing in countries that formerly ignored the problem and there is every evidence that the war has greatly strengthened interest in demographic trends. The population programs of the interwar period were largely experimental and their results were commonly inconclusive. But they give some clues as to the likely nature and possible success of efforts to alter population trends through governmental action in the postwar world. There is every likelihood that population policies will be more important determinants of demographic trends in the future than in the past.

The application of pronatalist policies and the rather astonishing increase of fertility in Western Europe accompanying the war give grounds for the belief that the countries of this region will be able to forestall a precipitous decline of population. But it seems highly improbable that either of these developments will for any extended period revive the very rapid growth of the past century in this region. Thus the population policy of Nazi Germany, backed by all the means available to the totalitarian state, was only successful in raising the reproduction rate to the level of replacement. A substantial share of even this achievement probably should be assigned to the full employment and relative prosperity in Germany accompanying rearmament.<sup>2</sup> In other Western European countries heavy reliance has been placed on providing relief from the economic burdens of childbearing and childrearing. Such policies may be expected to achieve some success. But they may well have a self-limiting aspect, in that they tend to reinforce and disseminate certain of the values that originally produced fertility decline (as, for example, the rising level of economic aspiration).

The revival of the birth rate accompanying the war is difficult to assess, but such evidence as is available suggests that the major source of increased fertility consists of first and second births, and not of the higher orders of parity that would indicate an increase in average family size. A permanent increase in fertility can be achieved only with the latter development.

It seems likely that Western Europe is on the road to achieving a new balance of births and deaths, and a reasonable end product of the vital revolution. In its implications for the physical well-being of the population this revolution rivals those of agriculture and industry.

<sup>1</sup> The population policies of the interwar period are fully described in the authoritative work by David V. Glass, *Population Policies and Movements in Europe* (Oxford: Clarendon Press, 1940).

<sup>2</sup> Cf. the author's "The Relation of Employment Levels to Births in Germany" in *Milbank Memorial Fund Quarterly* 20(2):126-138, April, 1942.

*The Changing Patterns of Migration*

Though births and deaths have been the chief determinants of population change in Europe, migration has been an important element in the growth rates of many areas and a decisive element in the expansion of European civilization into other continents. Profound changes were occurring in the patterns of European migration in the interwar period, and migration in general was becoming a more weighty factor in the balance of population growth or decline.

1. *Overseas migration.* The interwar period witnessed the fading and virtual disappearance of mass emigration from Europe. For more than a century prior to the First World War this had been one of the dramatic phases of European life and the human foundation of continued European expansion overseas. The Old World sent out wave after wave of emigrants, the tide ebbing and flowing with opportunity abroad and crises at home. Each new wave drew into its vortex people from an ever-widening perimeter of European lands, and thereby surpassed its predecessor. The greatest volume of overseas emigration occurred just before the First World War. That conflict was a turning point, after which overseas emigration progressively shrank during the 'twenties and in the 'thirties almost entirely disappeared.

The decline in overseas emigration was not only the result of the obvious causes—restrictive legislation and economic depression—but also of more fundamental forces affecting the relative advantages of migration. Thus the industrial countries of Western Europe failed to fill their American quotas even in the 'twenties. And despite oft-noted pressures on their American quotas, there was little substitute migration from Eastern and Southern European countries to other overseas lands. The drop in the volume of immigration in the 'twenties was greatest in those countries that applied restrictive legislation, but there was also a decline in countries without such legislation.

The underlying forces reducing overseas emigration were (a) changing opportunities in overseas countries and (b) the progress of industrialization in Europe. Conditions in overseas countries were becoming less attractive to mass immigration as these countries developed the characteristics of more mature economies. The remaining "open spaces" were not suitable for intensive European settlement without extremely high capitalization, and in any event their products were a glut on the international market. Furthermore the changed opportunities were not simply a matter of the "filling up" of overseas countries, as is often supposed, but also of institutional changes in the economy. On the one hand, the growing size of economic enterprises has perhaps made it more and more difficult for the immigrant to accumulate property and to achieve economic independence. On the other, increasingly important channels of social advancement in the "white collar" occupations are often barred to the immigrant by differences in language and education.

Paralleling changed conditions in overseas countries were those in Europe weakening the drive and the opportunity to emigrate. Overseas emigration is probably in essence a transitional phenomenon in European life. It is greatest in the early stages of modernization when the perspectives of the modern world have first raised the aspirations in a peasant society without providing the means of their satisfaction at home. Also, in demographic terms, a drive to migrate is promoted by the fact that the first phases of modernization reduce death rates without commensurate declines in the birth rate, thus creating rapid population growth. In a static rural economy rapid growth creates pressure on the land and a strong motive for emigration.

The sources of heaviest overseas migration have consequently moved across Europe with the widening circle of industrialization and modernization. After the first great wave of emigration in each area the movement has tended to subside. The pressure to migrate is weakened by the further operation of the vital revolution, which in the more advanced stages of industrialization



brings about a decline in the birth rate and a slowing of population growth. In its economic aspect the progress of modernization brings industrial development and the expansion of opportunities in nearby towns and cities. Finally, in its political phases modernization promotes strong national sentiment and greater resistance to the sacrifice of language and custom usually involved in overseas migration. These sentiments are sometimes re-enforced by national policies directed at discouraging or even prohibiting the movement.

Thus with progressive industrialization has come a drying up of the stream of emigration at its source. It is true that the uprooting of whole peoples incident to the war and the peace may stimulate a temporary postwar revival. The displaced persons form an obvious source of immediate overseas migration, and Germany and Italy seem to offer great potential sources of distress migration in the next few years for those countries willing to accept German and Italian immigrants. Furthermore, basic pressures to migrate still persist in the relatively backward countries; were present restrictions lifted these might provide a continuing movement from these countries for some years to come. But viewed in the larger perspective the peopling of other continents from Europe is probably in its final phase.

2. *International migration.* International migration within Europe has had smaller net results than overseas migration. Only within the past generation have there been mass movements within Europe comparable in volume to the overseas flood. But in the interwar period these were of increasing importance; in the late 'twenties France supplanted the United States as the chief country of European immigration.

In the interwar period, migration within Europe was of two types, one more characteristic of Western Europe, the other of the East. The former has been typically a movement from countries of lower levels of living and agrarian overpopulation to those of slower population growth and greater economic opportunities. Aside from some agricultural migration into France it has been essentially a rural-urban movement across international boundaries. Like overseas migration it has served as a safety valve for the relief of acute population pressure. In a modest way it has tended to equalize national differences in economic opportunity and population growth.

The other major type of international migration is that incident to the liquidation of minorities. The model for this solution of minority problems was the Greco-Turkish exchange of populations in the early 'twenties. With the resurgence of the most virulent forms of nationalism in the 'thirties the liquidation of minorities in Eastern Europe through forced transfer of populations gained increasing favor as a means of achieving internal unity and "racial purity." During the war forced migration became one of the most important instruments of aggression and certainly one of the most important causes of human misery and suffering. Today it is the predominant form of international migration in Europe and promises to continue so during the early postwar years.

3. *Internal migration.* In terms of numbers involved, internal migration is the most important form of migration in Europe. Though the detailed pattern of internal movement is an infinitely complex response to every conceivable motivation; the net results are relatively simple. In every European country the movement has been from the smaller to the larger population unit. Rural areas have fed the towns, the towns have fed the cities, and in each country the metropolises have been the end destination of internal migration. The inter-regional movements of non-urban populations have been mere ripples across a cityward tide. National policies that have tried to check the rural-urban drift, such as those of Nazi Germany, have universally met with failure; those that have promoted it, such as those of the Soviet Union, have met with spectacular success. In Europe the migration of people from farm to city has paralleled the rapid diffusion of urban values.

With advancing urbanization internal migration has become increasingly inter-urban rather than rural-urban. Between the wars it was clear that among cities commercial and administrative centers were favored over purely industrial towns, in keeping with the growing importance of service functions in the economy. At the same time, improved transport and higher standards of living were making it possible for larger numbers to seek more congenial living conditions in the suburbs of the larger cities and in the more attractive regions of their respective countries. This movement seems likely to continue. In fact, military and other considerations may ultimately promote a general dispersion from the great urban agglomerations, and with it the disappearance of the sharp contrasts now existing between urban and rural ways of life.

Two general trends may be observed in the European migrations of the interwar period, the first concerning the total incidence of migration, the other its fundamental character:

•(1) Despite the virtual disappearance of overseas migration and the vagaries of economic fluctuations, it was clear that the European population was becoming increasingly mobile. Geographical obstacles and cultural isolation were universally dissolving before modern technology and the impact of industrialization. Everywhere the total amount of migration was rising and migration was becoming an increasingly decisive factor in population change. Geographical ties were becoming less and less important in European life.

(2) This greater mobility was occurring within limits imposed by political boundaries and national policies. Within the national territory, where movement was generally free, migration was still chiefly a matter of individual choice guided primarily by economic advantage. But in the interwar period international migration was governed as much by political as by economic considerations. Since the middle 'thirties forced population transfers have been the predominant form of international movement. Even international migration for economic purposes was becoming less and less personal and spontaneous, more and more under governmental control both in the country of origin and the country of destination. Should the internal distribution of the population become a matter of paramount military importance it seems likely that internal migration, too, will be increasingly guided by national rather than by personal considerations.

#### *Changing Social and Economic Characteristics*

Much has been said above regarding the association of vital trends and migration currents with industrialization and the more general process of modernization. These latter are reflected objectively in the social and economic characteristics of the population detailed in the official census and vital statistics. Representative indices of social and economic development were given in Chapter IX, together with the detailed measurement of the European population by these standards.

Despite the wide range of economic and social characteristics represented, it is apparent that there was a common European pattern reflected in them all. This pattern had both a spatial and a temporal aspect. Thus in all cases there was a nucleus of maximum achievement in North-western Europe with retreating evidence of material progress as one proceeded away from this center towards the peripheries of the continent. There was a geographical continuum from the maximum material progress of the urban centers of the West to the isolated peripheries and the rural regions of the agricultural East. Intermediate areas were ranged on the scale of material progress roughly in relation to their distance from the centers of cultural diffusion in the West. There was a clear pattern of continental development over-riding national boundaries.

In its temporal aspect the continental pattern of economic and social development reflects time lags in the radiation of the attributes of modern civilization from its matrix of origin in the West. Cultural diffusion has been impeded by geographical and cultural barriers, and

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promoted by ease of communication and cultural contact, but no European people has proved immune to material progress once it has come into close contact with it. In this regard Europe is in one stream of cultural development, whether the measure of progress be the extension of the average expectation of life, the reduction of illiteracy, the increasing complexity and efficiency of the economy, or the growth of cities and the changed values that they represent.

It would thus be a great mistake to assume that the different absolute levels of material progress existing in interwar Europe represent the inherent capacity of the several peoples to absorb and apply modern technological civilization. There is no reason whatsoever to suppose, for example, that the Bulgarian peasant is inherently less capable of working with machines, of acquiring a high standard of education, or of achieving a low infant mortality rate than the skilled worker in industrialized England or Germany. The difference is almost certainly one of training and acculturation and not of innate abilities.

But it is true that the achievement of material progress takes time. Modernization is composed of a tightly knit and closely interdependent group of factors that have moved together as a unit across the continent. It is true that education, improved health conditions, and urbanization, for example, have not always progressed at uniform rates. In one country the reduction of illiteracy may proceed more rapidly than urbanization (as it has in Scandinavia); in another public education may lag behind general economic development (as it has in Southern Europe). But taken as a whole the factors composing the nexus of "progress" have moved across Europe in very close association.<sup>8</sup>

The interwar period was one of great advancement in all of the measures of social and economic development used. The continuation of the interwar trends would have seen a Europe a generation from now with health and mortality standards in the continent as a whole equal to the best observable in prewar Europe, with an almost completely literate adult population, and with a degree of industrialization in the entire continent equal to that of the more industrialized countries at the present time.

It readily comes to mind that war may have disrupted the orderly unfolding of earlier trends and that the implications of past development in the economic and social forces measured by the indices discussed will therefore not be realized in the postwar world. In the words of the common expression the war may have set Europe back "several generations."

Whether in the balance of conflicting influences war speeds or retards social evolution is probably an irresolvable question. But in view of the prevailing assumption that war necessarily greatly retards "progress," it may be well to point out that the First World War, at least, did not have that result. In so far as Europe's development may be measured by the social and economic indices discussed, that war did not seriously check the continuation of prewar trends, taking the continent as a whole. Thus the fundamental health conditions in Europe were not undermined by the war; the postwar life tables all indicate very marked improvement over prewar mortality even in the immediate postwar years, and in some cases the interwar mortality figures were better than might have been expected with the simple extrapolation of prewar

<sup>8</sup> Little attempt has been made in this study to quantify the degree of interrelationship, though the data given in Appendix II offer excellent source material for testing the association and determining the relative independence of the several variables considered. In general there is a very high degree of association as may be suggested by the following coefficients of correlation as computed for the 406 minor divisions of Europe used:

$$\begin{array}{ll} r_{xy} = .85 \pm .01 & \text{where } x = \text{gross reproduction rates} \\ r_{xz} = .76 \pm .01 & \text{y} = \text{per cent of population dependent on agriculture} \\ r_{yz} = .86 \pm .01 & \text{z} = \text{per cent of illiteracy among persons aged 10 and over} \end{array}$$

For the purpose of these computations the divisions were weighted according to population size. The correlations are generally higher in areas of transition in Eastern and Southern Europe, lower in Northwestern and Central Europe where these are rather crude measures of material progress (e.g., since illiteracy is rare in any case and urban values have effectively penetrated rural areas).

downward trends. Literacy data (cf. Figure 44) do not suggest any significant disruption of downward trends as the result of the war. The necessities of war in themselves probably accelerate industrialization and urbanization; the uprooting of people and the greater social mobility resulting from the First World War probably facilitated the cityward movement in the interwar period. In any event the movement proceeded rapidly during the interwar years.

The nature of general changes in the material levels of living is more debatable. But there unquestionably was a great increase in the number and use of things associated with modern living. Measured by such indices as the circulation of newspapers and magazines, the number of radios and automobiles, the amount of travel, the attendance at the cinema, and the number of houses with modern lighting and plumbing facilities, there must have been a substantial rise in levels of living in the interwar period. The value placed on these attributes of modern civilization is a subjective matter, but it is hardly to be doubted that, measured in these terms, the European level of living was rising in the interwar period.<sup>4</sup> Whether or not this advance would have been much greater in the absence of the First World War is an academic question. Suffice it to say that despite the war and despite all its own difficulties the interwar period was one of great "progress" in European material civilization.

The destruction of capital and the impoverishment of the people in the Second World War will unquestionably lead to great difficulties in advancing the welfare of the European population in the immediate postwar years. These difficulties are underlined by current shortages in all types of goods. But in the longer perspective they may be exaggerated. Existing resources and technology are probably adequate to replace the physical losses of war in a relatively short span of years, given a smoothly functioning economy and adequate motivation. Given the same individual and social desire for material advance that has motivated past progress, Europe probably has ample means to surpass interwar levels of material civilization far short of the "several generations" commonly defined as necessary for recovery. Recovery is not so likely to be retarded by the lack of economic means as by the deliberate destruction of wealth and suppression of available productivity.

The problems of achieving future "progress," however, differ sharply in the several major regions of the continent. In industrial Western Europe the cheap gains have already been made. Thus, the great savings of life achievable by comparatively simple public health measures have already been exploited. In Sweden, for example, even if all deaths under age 40 were eliminated the saving of life would not be nearly as great as that achieved through reduction in mortality at ages under 40 since 1910. Similarly elementary education in most Western countries has been made available to almost all persons mentally capable of absorbing it. Already largely urbanized and industrialized, these countries do not have large unexploited reserves of physical resources and peasant manpower. Before the war Western Europe already had at hand the means of providing its citizens with a standard of living commensurate with the minimum physiological requirements of the individual. Further advances were essentially problems of quality and distribution rather than those of providing a minimum subsistence living. In other words future progress of Western Europe will be less measurable than now in terms of simple indices of development such as those used in this volume for measuring social and economic achievement.

Further progress in the material civilization of Western countries seems likely to be won at greater economic cost than in the past. Thus barring spectacular success in the treatment of organic diseases of middle and old age, further gains in reducing mortality must be won at

<sup>4</sup> Granted, of course, that the advancement in levels of living was not universal and not evenly distributed. The Bulgarian peasant, for example, may have fared worse in the interwar period than before. Comparatively untouched by modern influences, his level of living derives from his land. Owing to the pressure of population growth on his limited agrarian resources, the typical peasant may have been worse off than before the war.

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greater unit expense in terms of medical facilities. Education becomes progressively more costly at the higher levels, and even at the elementary level qualitative considerations seem likely to assume greater emphasis with the shrinking cohorts of children and youth in the Western European population. In advancing the level of living of its populations Western European countries must compete with countries utilizing newly exploited physical resources and cheap labor only recently drawn into an industrial economy, though it is also true that the advancement of Eastern Europe should extend the market for the more diversified quality production of the industrially older West.

The developed resources of Western Europe, and more particularly its technical knowledge and organization, should be ample to provide the means to further material progress in a politically stable world. More serious than the possible lack of adequate resources is the possibility that these resources will not be effectively utilized, owing to unemployment and economic frictions or to the loss of incentive to economic advance. The latter, though intangible, may be a decisive factor in the situation. If the war brings in its trail a widespread feeling of discouragement and skepticism regarding value of material progress both to the individual and the society, the driving force of the progress may be lost. Or, it may be that Western Europe, like France in the interwar period, will be content to sacrifice some aspects of a feverish progress for more leisurely enjoyment of the gains already made. The aging of the population and the absence of the stimulus to economic activity formerly provided by a rapidly growing population may promote tendencies in this direction.

In many regards the future course of material progress in Eastern Europe is much more readily defined than in the West. Eastern Europe is vitally aware of its backwardness in terms of the social and economic indices described and will certainly make great strides in modernization in the coming years, given a modicum of political stability.

Thus few predictions can be made with greater certainty than that the Soviet Union will experience rapid material progress in the postwar years. Formerly the most backward region of Europe, the U.S.S.R. made spectacular progress in the interwar period. In the decade preceding the war urban and industrial development proceeded at a pace unexcelled in the history of the world. The typical Russian was being rapidly transformed from an illiterate peasant to a forward-looking town dweller. The U.S.S.R. was rapidly closing up the cultural gap that formerly made its great numbers ineffective vis-à-vis the industrialized West. The great resources available for exploitation, the cohesion displayed by the Russian people during the war, and the leading role the Soviet Union will inevitably play in the postwar world seem to justify the expectation of continued modernization in the pattern of the spectacular gains made in the interwar period.

In the remainder of Eastern Europe, as in the Soviet Union, many of the basic gains of modernization are still to be achieved. Torn by political discord and faced with the pressure of a rapidly growing population on limited resources, the small countries of Eastern Europe will have greater difficulties in advancing the welfare of their populations than those now to be encountered in the Soviet Union. Despite ethnic and religious heterogeneity the countries of this region have much in common. They are all agricultural and, by Western European standards, they are all poor and backward—though until quite recently in advance of Russia. In many regards these countries have little to work with for the achievement of material progress. But there can be little question of the goal—all desire rapid industrialization and economic and educational advance.

Given the animus for material development clearly evident in Eastern Europe and the Soviet Union, it seems reasonable to suppose that the countries of this region will be able to close up

some of the more obvious gaps between this region and the West in the coming years. They are at the stage of development in which the cheap gains are to be made. With the aid of modern medical knowledge very great savings of lives are possible in this area at relatively little economic cost. Elementary public education before the war was already going far to eliminate illiteracy among the young; the war has probably increased rather than diminished the desire of these peoples to finish the job and vanquish illiteracy as it has been vanquished in the more advanced countries of the West. Finally, the war has taught above all else that the effectiveness of a nation in the modern world depends on the strength of its industrial resources. The Soviet Union has set a firm course towards the most rapid industrialization possible. The new leaders in other Eastern European countries are equally aware of its importance and may be expected to promote it with every means at their disposal. Since governmental efforts in this regard swim with the strongest of social trends, they may be expected to meet with success within the limits set by political difficulties and the paucity of the natural resource base.

The above discussion suggests that in the coming generation Europe may witness a levelling off of the sharp regional differentials in economic and social development that have existed for many previous generations and were still clearly apparent in the interwar period. The interwar years were notable for the fact that they saw the final success of the standards of well-being originally set in Western Europe but long in the process of spreading across the continent.

#### *The Role of Nationalism and Ethnic Diversity*

The industrialization of Eastern Europe obviously has the most important implications for the future of the continent. But these are fully understandable only in the light of another essential ingredient in the chemistry of modernization—the national sentiments and ethnic loyalties that have made possible the effective modern state. Unhappily the assimilation of the formerly passive populations of Eastern Europe to the materialistic aspirations for some time prevailing in the West no more assures harmony in the continent than it did when they achieved general acceptance in the countries of their origin.

Though they have been a destructive and divisive influence in many respects, it would be a great mistake to assume that nationalism and ethnic loyalties have not played an important part in the positive achievements of the modern world. The substitution of national for local loyalties is the basis of the modern state and a necessary prerequisite to the material achievements of the modern era. The national state must rely on the material achievements of its populace as the chief source of its power. No state can hope to hold permanently an important place in the modern world without a literate, healthy, and industrious population. These form the material basis of its power even more than natural resources, which achieve importance only through human beings. At the same time the extension of primitive local loyalties to the wider area represented by the national state is possible only with widespread popular education indoctrinating the masses with common standards of language and world outlook, not to mention all the trappings of communication and transport that bring the values of the wider society to the formerly isolated and closed community. Nationalism is a most natural concomitant of the broadening of horizons implicit in the shattering of old values based on a chiefly local orientation.

Hence the national state itself has been one of the most powerful forces prying open the tight little world of the peasant village community. It insists that all citizens shall learn to read and write, and hence think, in the national idiom. Through the school it indoctrinates the children in the common history and symbols of national unity; it also brings to the local community knowledge of the outside world and urges upon it the standards of health and economic well-being that permeate the national (and urban) centers of culture. It brings roads, railways,

posts, and telegraphs and, with these, constant contacts with the outside world. Material progress has given the national state its physical strength and power; at the same time the greater achievements of material progress have been possible only with the unifying animus of nationalism.

Obviously it is beyond the scope of the present study to discuss the cultural origins and history of nationalism in Europe. But it seems safe to assert that nationalism has been a universal concomitant of economic and social development in Europe. Therefore, national pressures have radiated out from their Western European origins. With the aid of their superior material power, unity of sentiment, and prestige conveyed by power the countries of the West were able to dominate and to some extent absorb neighboring peoples of lesser material advance and political consciousness. But these efforts provoked both reaction and imitation.

The nature of these reactions with respect to language as a criterion of nationality was discussed in Chapter X. The reactions were especially violent where the native idiom of the dominated peoples differed markedly from the official language of the dominant state. For a standardized literary language is an absolute essential in a civilization so heavily dependent as ours on the common understanding of the written word. Where the differences are only dialectical the spoken word may vary markedly in pronunciation and vocabulary without destroying national unity, given an accepted literary language intelligible to all. In such a situation the transition from traditional usage to "correct" practice is a gradual and relatively painless process. But where the state and local languages differ radically the conflict is inevitably greater and language becomes a focal point of resistance to unification and absorption in the dominant group.

The peoples most subject to the pressure from the West were at the same time in closest contact with its technology and its ideas. Thus it was not uncommon in nineteenth century Europe to see an ethnic group resisting encroachment from the West on one side of its settlement area at the same time that on the other side it was itself exerting similar pressure on less advanced neighbors lying further removed from the centers of cultural diffusion.

Before the First World War nationalistic movements on earlier Western models were widespread in Eastern Europe, but the situation remained inchoate. The languages of the towns and of government were commonly imported from the West and symbolic of economic, political, and cultural domination from that quarter. The differing rural idioms were perpetuated by virtue of peasant fertility and a growing consciousness of ethnic unity in the face of alien domination.

The First World War brought about the victory of local idioms in Eastern Europe and their incorporation as official languages of states and the symbols of victorious nationhood in the areas under their sway. The interwar period saw the crystallization of these nationalisms by virtue of their official support and by virtue of public education and spreading literacy in the national tongues. The minorities speaking languages symbolic of former alien domination were in rapid retreat in the interwar years, and many of them have been completely liquidated through population exchanges and forced migrations since 1939.

The national state, based on ethnic purity, has become the ideal in Eastern Europe west of the Soviet Union. The most drastic measures are being taken to assure ethnic unity in the national territory in complete disregard of historical and humanitarian considerations. The unity of national sentiment found in most Western countries as the result of a long process of assimilation and unification is being sought in the East by quicker and more radical means. But the goals are the same.

The overwhelming emphasis on ethnic adherence, and especially on language as the bearer

of unified national symbols, has brought the linguistic distribution of the European population into prominence. By virtue of their new political prestige and their greater growth potential, the languages of Eastern Europe were assuming greater numerical importance in Europe in the interwar period. By the end of that period Slavic languages were spoken by close to 200 million people whose settlement area included half the territory of Europe as well as a substantial part of Asia. The rapid growth of Great Russian, the native language of more than half the Slavs, raised it to the status of the first language in Europe in the interwar period. For at least a century before, German had stood as the first language of Europe in number of adherents.

A large part of the recent history of Europe has revolved around the efforts of the Germans to establish a unification of all German-speaking areas and a hegemony in Europe corresponding to the numerical and industrial importance of the German-speaking peoples. This issue was probably decided, once and for all in the recent conflict. Developments in Eastern Europe almost certainly preclude any comparable threat on the part of Western Europe in the future.

For the East has at last awakened and is using the technology and ideas of the West to serve its own purposes. The trends of the interwar period provide the strongest reasons for supposing that the increasing weight of Eastern Europe in European affairs is solidly based on powerful cultural trends. Thus in the above survey we have pointed to three developments:

(1) The different stages in demographic evolution in the major regions of Europe, which presage an eastward shift in the weight of numbers.

(2) The industrialization and modernization of the East, well started in the Soviet Union in the interwar period, and making much more rapid progress elsewhere in Eastern Europe than was commonly supposed. In these regions there remain great unexploited reserves of natural resources on the one hand and large populations only now in the process of emerging from an illiterate peasantry into the productive economy of the modern world.

(3) The development of self-conscious national states, fired with the strength of new power and achievement. In the Soviet Union the failures in Western Europe arising from linguistic and cultural antagonism are being avoided, in that these are not being permitted expressions in separate political entities. In the Soviet Union linguistic minorities are allowed as great cultural freedom as in any other European country. But there is no question but that Great Russian is the language of civilization and the universal medium throughout.

Thus in Eastern Europe, and especially the Soviet Union, a great expansion in numbers is occurring with, at the same time, rapid expansion in the means by which numbers are made effective in the modern world. In the Soviet Union both are occurring within the context of a unified state fully conscious of its strength and confident in the achievement of a great future destiny.

### *Europe in the World*

An assessment of the human resources of the European continent is scarcely complete without some reference to the place of Europe's population in the larger world setting. Demographic and other underlying social changes are bringing about profound changes within the continent; they are also necessitating fundamental readjustments in the relationships of Europe with the rest of the world.

Viewed in world perspective, modern history has been the story of the expansion of Europe. This expansion has often been narrowly conceived as the extension of European political sovereignty over the greater part of the globe. Broadly conceived it is the diffusion of European civilization to other continents and to non-European peoples. In its material aspects this process is subject to measurement by many of the indices that have been employed in evaluating the population trends and the social and economic development of the population of Europe.



The chief bearers of European civilization are, of course, Europeans. A not inconsiderable element in the rise of Europe in world affairs was the very rapid increase in the number of persons of European race both at home and abroad. People of European race have multiplied seven times since 1650, the pace of growth being twice that of non-European peoples. Through the great overseas migrations and the advance of the Slavs into Asia, persons of European origin have occupied territories far exceeding the native continent in area and certainly equalling it in natural resources.

The quantitative expansion of Europeans cannot be disassociated from the process of industrialization and modernization that made it possible. The growth of the European population at home and the settlement of large overseas areas by Europeans was of course dependent on the material power placed in their hands by technological advance. For generations Europeans enjoyed a monopoly of those military and economic skills that give power in the modern world. These flourish today only in strong industrial civilizations broadly based on healthy, literate, and urbanized populations indoctrinated with strong material aspirations and with national loyalties transcending familial and local ties. The world hegemony of European and especially Western European countries has been founded on the material advance of her populations.

The head start achieved by European peoples in the processes of modernization gave rise to a common belief that other races were incapable of absorbing the industrial technology of the West. Indeed they have been slow to do so. But today there can be no question but that the average Chinese, for example, given the same training and motivations, can perform as efficiently in an urban, industrial civilization as the average American or Western European. Non-European peoples have been slow in achieving the material advance of the West not because of any inherent incapacity but because its achievement rests on a very wide complex of factors involving a fundamental cultural revolution and a sharp break with old patterns of thought and custom pervading every phase of life. This cultural revolution takes time, but it is occurring and with increasing rapidity and explosive force as advances in communication have brought non-European peoples into closer contact with the West. Everywhere contact with the physical power and comforts of European civilization have stimulated imitation. It is doubtful if in the interwar period there was any part of the world that did not give some evidence of material progress. The whole world, as well as Europe, is now moving towards goals of material progress and power originally formulated in Western Europe.

In Europe itself there were still enormous differences in the stage of material progress among its component regions; these were even more marked as between the various parts of the world. Certain selected measures of cultural and demographic development of the populations of the several continents are given in Table 19.

In the table the areas are arranged in a rank order determined by the indices employed. The sequences display a remarkable degree of regularity indicative of the close association of educational, economic, and demographic development.

The lowest figures, representing a high degree of material progress and an advanced stage of demographic evolution, were to be found in North America and Oceania. Both of these areas are chiefly peopled by persons of European origin. Their material advancement has been favored by abundant natural resources and freedom from the restrictions imposed by firmly entrenched custom and tradition. Their levels of attainment were not superior to those of the more advanced countries of Northwestern Europe, but in the average for the European continent as a whole these were balanced by the weight of Eastern and Southern European countries of lesser material achievements. The rates of natural increase and native population growth

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were somewhat higher in overseas Europe than in the home continent, but the differences in vital rates among the three areas were actually of small consequence and within the limits of annual fluctuations.

The Soviet Union and Latin America were areas in transition. In both there were important centers of industry and urban living but also large populations only recently exposed to the full impact of Western civilization. In these two areas the vital revolution was still in its initial stage of rapid population growth. Substantial progress had been made in cutting death rates,

TABLE 19

Selected Demographic Indices for the World and the Several Continents as of 1930<sup>1</sup>

Area	Estimated Population (millions)	% Illiterate at Age 10 and Over	% Dependent on Agriculture	Vital Rates per 1000 Population		
				Birth	Death	Natural Increase <sup>2</sup>
North America	134	4	25	21	11	9
Oceania	10	13	34	23	13	11
Europe (without U.S.S.R.)	377	15	36	23	14	8
U.S.S.R. <sup>3</sup>	155	39	73	39	24	15
Latin America	110	56	67	42	26	16
Asia (without U.S.S.R.)	1,105	81	68	44	31	13
Africa	148	88	78	48	35	13
World	2,040	58	60	38	26	12

<sup>1</sup> Derived from a special study made by the Office of Population Research, Princeton University. The continental figures were obtained by weighting the indices for each component country or political entity according to its population. Official census and vital statistics were used where available, but for many areas estimates were necessary, based on a wide range of evidence of greatly varying quality. The reliability of the data is greatest for Europe and Europe overseas, least for Asia and Africa.

<sup>2</sup> In several instances the rates of natural increase given do not exactly equal the difference between the birth and death rates entered in the table. This arises from the fact that each rate was computed and rounded independently.

<sup>3</sup> The figures for the Soviet Union are estimates derived from interpolations. Owing to the rapid changes occurring in the U.S.S.R., the ranking of the area would have been somewhat different if the data had been drawn from either the 1926 or the 1939 censuses and vital statistics. The estimated population and vital rates are drawn from Frank Lorimer, *The Population of the Soviet Union*, p. 134, the figures for illiteracy and dependency on agriculture being straight line interpolations from 1926 and 1939 census materials.

but the decline of the birth rate was only beginning to appear. As a result these areas had the highest rates of natural increase.

In the middle of the interwar period the impact of modernization was scarcely evident in the figures for Asia and Africa, taking these continents as a whole. Among specific countries, such as Japan, modernization had made great headway. Japan was among the more literate countries of the world, industry and urbanization were in a swift tide of development, and the effects of the vital revolution both as regards declining death rates and declining birth rates were clearly evident. This and lesser examples of the impact of European civilization on Oriental and African peoples were of the greatest importance because they proved the capacity of non-European peoples to absorb and to create an industrial civilization on European patterns. But

in the interwar years these were still of small weight in the enormous population of the Asiatic continent. In the interwar period the great mass of Asiatics, who constitute more than half of the human race, were only beginning to feel the impact of Western technology in their daily lives. The great increases of population occurring in Asia and Africa were not a measure of material progress among the native inhabitants but a product of the colonial policies of alien peoples, who for humanitarian and other reasons reduced deaths by establishing public order, eliminating famines, and introducing rudimentary provisions for public health.

In the interwar period "progress" was still largely a property of Europe and of European peoples. Thus half of all the literate persons in the world lived in Europe and three-quarters were of European origin, though the latter comprise only one-third of the human race. But there was every reason to suppose that this monopoly would pass as the arts of modern civilization are diffused among the non-European peoples now eagerly reaching out for them.

The industrialization and modernization of non-European peoples face great obstacles. On the one hand these processes encounter the opposition of deeply rooted attitudes and practices at variance with their goals. On the other hand the countries occupied by these peoples often suffer from pressure of population on the land and a poverty in those natural resources necessary to industrialization. But it would be unwise to underestimate their capacity for rapid assimilation of Western values and skills once these have gained some foothold.

Europe's methods of saving lives, the value she has ascribed to the education and the economic well-being of the common man, her techniques for creating the goods of peace and the weapons of war, even her nationalism—are all exportable commodities. They are now becoming not the property of one segment of humanity but the possession of all mankind.

The spread of Western civilization has brought reactions sometimes regarded as inimical to the narrower interests of the nations which created it. The diffusion of industrialization from Western Europe first of all brought about a correlative migration of political power to the East in Europe and to the West across the ocean. Now the spark of materialistic and nationalistic ambition has struck fire among non-European peoples long politically subject to Western rule. The old centers of Western civilization, torn by internal strife and no longer the locus of unchallenged political power, inevitably face a period of major readjustment in the postwar world.

But if Europe can find ways to resolve its own internal conflicts there is less reason than is often supposed to regret the passing of the mantle of political leadership from the almost exclusive control of the handful of Western European powers. It has not been the great powers that have afforded the best living to their citizens. The highest standards of welfare have rather been set by those small nations who have not diverted their efforts to national aggrandizement. In many respects these small nations have been in the vanguard of progress. The loss of exclusive political power does not predicate the loss of that cultural leadership that Western Europe has so long exercised in the world.

# APPENDICES

## GENERAL NOTE

The following appendices I-III include much of the source data utilized in the construction of the textual maps and charts and referred to in the discussion. They do not purport, however, to cover all the data used or to present a summary of all European demographic statistics for the interwar period. Such a presentation would extend far beyond the space limitations of the present volume and would involve needless repetitions of the excellent international and national compendia already available.

Outstanding among the standard sources of demographic information are the annual *Statistical Year-Book of the League of Nations* and the *Aperçu de la démographie des divers pays du monde*.<sup>1</sup> These sources provide extensive information on annual estimates of population, and on age and sex distributions, marital status, etc., at specified census dates. Therefore no attempt has been made here to duplicate these materials in full. The listing of interwar censuses and census figures in Appendix I is intended merely as a brief guide to materials much more fully elaborated in the above-mentioned international collections and in the national censuses listed in the bibliography (Appendix IV).

Similarly no attempt has been made to recapitulate vital statistics covering the gamut of marriage, divorce, birth, death, and causes of death, which are elaborately detailed by country and for each interwar year in the international compendia and in the national vital statistics publications. Historical data for European countries are compiled in the volumes by Robert R. Kuczynski, *The Balance of Births and Deaths*<sup>2</sup> and *The Measurement of Population Growth*,<sup>3</sup> as well as in the national and international surveys often included in statistical annuals.<sup>4</sup> Mortality rates and the life table functions derived from these are also available in the international sources mentioned and in the special national publications relative to life tables included in the bibliography.

Owing to the availability of these compilations the interwar demographic indices given in Appendix II are intended to be representative rather than complete. At the same time the coverage has been extended to include internal divisions, the data for which are commonly neglected in the usual international sources. Appendix II presents all the demographic indices shown in the maps of Europe by small areas, with the exception of the materials on migration.

Historical data on international migration are capably assembled in the monumental compilations incorporated in the classic study of *International Migrations*<sup>5</sup> and supplemented by later publications of the International Labour Office.<sup>6</sup> However, materials on migration generally, and particularly on internal migration and net migration balances, have been far less adequately covered than census and vital statistics. Therefore these have been elaborated more fully in Appendix III, relating to migration.

A bibliography of official sources of demographic data is given in Appendix IV. To enable the identification of the areas for which data were plotted in the text maps, outline maps showing the political divisions used are presented in Appendix V.

<sup>1</sup> Issued irregularly by the Office Permanent de l'Institut International de Statistique, the last publication covering the period 1929-1936 (The Hague, 1939).

<sup>2</sup> Vol. I. *Western and Northern Europe* (New York: Macmillan, 1928) and Vol. II. *Eastern and Southern Europe* (Washington: Brookings Institution, 1931).

<sup>3</sup> New York: Oxford University Press, 1931.

<sup>4</sup> Especially complete historical reviews are included in the various editions of the French *Annuaire statistique* issued by the Statistique Générale de la France.

<sup>5</sup> Compiled for the International Labour Office and edited by Walter F. Willcox (New York: National Bureau of Economic Research, 1929), 2 vols.

<sup>6</sup> Cf. Chapter V, footnote 6.

# APPENDIX I

## INTERWAR CENSUSES OF POPULATION IN EUROPE<sup>1</sup> (Boundaries as of 1937)

Country	Census Type <sup>2</sup>	Approximate Dates									
		1920		1925		1930		1935		1940	
		Date of Census	Population ('000's)	Date of Census	Population ('000's)	Date of Census	Population ('000's)	Date of Census	Population ('000's)	Date of Census	Population ('000's)
Albania.....	—	—	—	—	—	5/25/30	1,003	—	—	—	—
Austria.....	J	—	—	—	—	—	—	3/22/34	6,760	5/17/39	6,650
	F	1/31/20	6,426	3/7/23	6,535	—	—	3/22/34	6,763	—	—
Belgium.....	J	12/31/20	7,465	—	—	12/31/30	8,092	—	—	—	—
Bulgaria.....	F	12/31/20	4,847	12/31/26	5,479	—	—	12/31/34	6,078	—	—
Czechoslovakia.....	F	2/15/21	13,612	—	—	12/1/30	14,730	—	—	—	—
Denmark.....	F	2/1/21	3,268	11/5/25	3,435	11/5/30	3,551	11/5/35	3,706	11/5/40	3,844
England & Wales.....	F	6/19/21	37,887	—	—	4/26/31	39,952	—	—	—	—
Estonia.....	F	12/28/22	1,107	—	—	—	—	3/1/34	1,126	—	—
Finland <sup>3</sup> .....	J	12/31/20	3,365	—	—	12/31/30	3,667	—	—	—	—
	F	2/31/20	3,105	—	—	12/31/30	3,463	—	—	—	—
France.....	J	3/6/21	39,210	3/7/26	40,744	3/8/31	41,835	3/8/36	41,907	—	—
	F	3/6/21	38,798	3/7/26	40,228	3/8/31	41,228	3/8/36	41,183	—	—
Germany (excl. Saar, 1925 & 1933)	J	—	—	6/16/25	62,411	6/16/33	65,218	—	—	5/17/39	69,317
	F	—	—	6/16/25	62,568	6/16/33	65,336	—	—	—	—
Greece.....	J	12/18/20	5,139	5/15/28	6,131	—	—	—	—	10/16/40	7,336
	F	12/18/20	5,017	5/15/28	6,205	—	—	—	—	1/31/41	9,319
Hungary.....	F	12/31/20	7,990	—	—	12/31/30	8,688	—	—	—	—
Ireland.....	F	—	—	4/18/26	2,972	—	—	4/26/36	2,968	11/16/41	2,992
Italy.....	J	12/1/21	38,449	—	—	4/21/31	41,652	4/21/36	42,994	—	—
	F	12/1/21	37,974	—	—	4/21/31	41,177	4/21/36	42,445	—	—
Latvia.....	F	6/14/20	1,596	2/10/25	1,845	2/11/30	1,900	2/12/35	1,950	—	—
Lithuania.....	—	—	—	9/17/23	2,029	—	—	—	—	—	—
Netherlands.....	J	12/31/20	6,865	—	—	12/31/30	7,936	—	—	—	—
Northern Ireland.....	F	—	—	4/18/26	1,257	—	—	2/28/37	1,280	—	—
Norway.....	J	12/1/20	2,650	—	—	12/1/30	2,814	—	—	—	—
	F	12/1/20	2,632	—	—	12/1/30	2,786	—	—	—	—
Poland.....	J	—	—	—	—	12/9/31	32,107	—	—	—	—
	F	9/30/21	27,176	—	—	12/9/31	32,134	—	—	—	—
Portugal (incl. Islands).....	F	12/1/20	6,033	—	—	12/1/30	6,826	—	—	12/12/40	7,722
Rumania.....	J	—	—	—	—	12/29/30	18,057	—	—	—	—
Scotland.....	F	6/19/21	4,883	—	—	4/26/31	4,843	—	—	—	—
Spain (incl. Canaries).....	J	12/31/20	21,924	—	—	12/31/30	23,907	—	—	—	—
	F	12/31/20	21,303	—	—	12/31/30	23,564	—	—	12/31/40	25,878
Sweden.....	J	12/31/20	5,904	—	—	12/31/30	6,142	12/31/35	6,251	12/31/40	6,371
Switzerland.....	J	12/1/20	3,880	—	—	12/1/30	4,066	—	—	12/1/41	4,266
	F	12/1/20	3,886	—	—	12/1/30	4,077	—	—	—	—
Yugoslavia.....	F	1/31/21	11,985	—	—	3/31/31	13,934	—	—	—	—
U. S. S. R. <sup>4</sup> .....	F	—	—	12/17/26	147,028	—	—	—	—	1/17/39	170,467

<sup>1</sup>For sources, see the bibliographical references given for each country in Appendix IV. Annual population estimates and detailed notes on the effects of boundary changes are given in the annual issues of the *Statistical Year-Book of the League of Nations*.

<sup>2</sup>Two basically different census procedures are employed in Europe, which are reflected in two types of population figures:

1. *De jure* or "resident" population (J), nominally including all persons legally resident in the area (regardless of whether or not physically present at the time of enumeration) and excluding persons temporarily in the area on visits, personal and official business, vacations, etc.

2. *De facto* or "present" population (F), nominally including all persons physically present in the area at the time of enumeration (regardless of legal residence) and excluding persons temporarily absent.

In actual practice the above definitions are not always rigidly applied and the interpretation varies substantially from country to country. It may be noted that in the majority of cases the resident population exceeds the present population. In countries of emigration, such as Italy, Spain, Finland, and

Norway, a certain number of permanent emigrants are listed in the *de jure* or legal population, thus inflating this figure as compared with that for the population actually present. In France the inclusion of Frenchmen in the armed forces and colonial administrations serving outside metropolitan France results in the recording of a larger *de jure* than *de facto* population. In Austria, Germany, and Switzerland the differences are relatively small. In these lands the present population exceeds the resident population owing to the inclusion in the latter figure of relatively few persons absent from the country.

<sup>3</sup>The *de facto* populations for Finland do not include foreigners (27,700 in 1930). The official *de facto* populations used for census analysis are substantially smaller owing to the fact that they omit all persons absent from their place of legal residence at the time of the enumeration, whether in or outside the country.

<sup>4</sup>For some purposes the Italian census of 1936 utilizes a so-called "special" population (42,919 thousand) consisting of the *de facto* population plus persons for military or other reasons temporarily in the colonies and Ethiopia.

<sup>5</sup>Includes European and Asiatic Russia.

## APPENDIX II

### REPRESENTATIVE DEMOGRAPHIC INDICES OF THE INTERWAR PERIOD IN EUROPE, BY MINOR DIVISIONS

#### Methodological Notes

The table that follows on pp. 263-277 presents the typical demographic indices graphically represented in the small-area maps appearing in the text (aside from the materials on migration presented in Appendix III). Unless otherwise indicated the basic data were derived from the official publications listed in Appendix IV.

For purposes of consistency and comparability the indices refer to, or are centered on, censuses taken in the middle of the interwar period even though information from later censuses is available in a number of instances.

Owing to the very wide variety in census procedures and in the accuracy and completeness of reporting, the preparation of this table involved many estimates and numerous adjustments of the basic data. To provide a more systematic description of the materials, each series of indices is considered below, the remarks relative to specific figures being presented in the footnotes to the table.

1. *Area, population, and density.* The areas chosen for analysis are generally the largest administrative divisions in the countries concerned, supplemented by further break-downs of these larger divisions where their size and the availability of data seemed to merit such action. In some countries (Albania, Estonia, Lithuania, Northern Ireland, Scotland, and Switzerland) the largest divisions commonly used for census analysis were too small for effective cartographic presentation in the text maps. In the first four countries listed the nation was generally treated as a unit. In Scotland the counties were grouped in an official regional classification of four divisions. In Switzerland the small cantons were consolidated in regions of similar ethnic and economic characteristics. In Hungary the autonomous towns aside from Budapest were merged with the surrounding districts. The small area analysis for the Soviet Union is confined to the European and Transcaucasian territories for which data were charted in the text maps.

Where possible the areas given exclude coastal waters and inland waterways. Where two or more census populations are available for the same area (e.g., *de facto* and *de jure*) that most commonly used for official analysis of growth and vital rates has been entered.

2. *Average annual per cent growth* (Figure 9). These figures show the average annual per cent change of population computed geometrically, as a rule for intervals from the first to the last interwar censuses (cf., Appendix I). Since in many countries the last interwar census was taken about 1930, in a number of cases subsequent official population estimates were utilized, as follows: Belgium (1939), Czechoslovakia (1936), Danzig (1939), Finland (1938), Greece (1938), Iceland (1938), Lithuania (1938), Netherlands (1939), Norway (1938), Poland (1938), United Kingdom, aside from Northern Ireland (1938), and Yugoslavia (1938).

3. *Average vital rates, 1930-31* (Figures 13-15). These are rates per 1,000 population computed on an annual basis. Official data have been used where available, though it is clear that there is a substantial under-registration of vital events in most Eastern European countries and especially in the least developed areas within these countries. A comparison of birth statistics with the corresponding cohorts as reported in the censuses of Greece, Rumania, and Yugoslavia suggested that up to 10 per cent of the births were not being reported. An excellent study in Poland revealed substantial omissions in the birth registration statistics of that country (cf. Office central de statistique, *Problèmes démographiques de la Pologne*, Statistique de la Pologne, Série C, Fascicule 41, Warsaw, 1936). Other checks suggest a considerable number of omissions in the reporting of deaths in these countries. However, the measures of under-registration are not sufficiently precise to justify the labor involved in computing them for the smaller divisions.

The rates of natural increase combine the defects of birth and death registration, but since both are usually understated where reporting is incomplete, the errors are not cumulative but tend to cancel each other. Since the under-registration is greatest where the rates are higher, the official data thus tend to understate the differentials in vital rates between the major regions of Europe.

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4. *Reproduction rates, ca. 1930* (Figures 17 and 18). The gross and net reproduction rates were computed by standard procedures discussed in R. R. Kuczynski, *The Balance of Births and Deaths* and *The Measurement of Population Growth* (both cited above) and D. V. Glass, *Population Policies and Movements in Europe* (Oxford: Clarendon Press, 1940). The rates for the counties of England and Wales were drawn from the latter source, pp. 62-63. Those for France are from Pierre Depoid, "Taux de Reproduction et Autres Indices Demographiques des Départements Français" in *Population* 2(4):57-76, August 1938. The rates for the U.S.S.R. are from Frank Lorimer, *The Population of the Soviet Union: History and Prospects* (Geneva: League of Nations, 1946), pp. 90-92.

Owing to the common difficulty of obtaining age-specific schedules of fertility for the minor divisions, the reproduction rates for these areas were usually computed by the substitute method (Glass, *op. cit.*, pp. 387-393). In each instance the fertility schedule of the country as a whole was applied to the appropriate female age group in each area and the results were summed to obtain the expected number of births if the division in question had the same age-specific fertility as the whole country. The ratio between the expected number (so computed) and the actual number of births was then used as a correction factor applied to the total fertility rate of the country for obtaining the estimated gross reproduction rates in its component divisions. The true rather than substitute rates were used for minor divisions only in the following countries: France (as computed by Depoid), Czechoslovakia, Germany, Poland, and Sweden. For Czechoslovakia and Poland true rates were used only for the largest sections. For Germany they were used only for those with available statistics of birth by age of mother, substitute rates being computed for the remaining areas.

Statistics of birth by age of mother were also lacking for a few entire countries. In these cases it was necessary to utilize the fertility schedules of nations of comparable demographic development for purposes of obtaining substitute rates for these countries and their component parts. Thus the fertility schedules for the Netherlands (1930-1931) were used to determine substitute rates for Ireland and Northern Ireland, those of Denmark (1926-1930) for Scotland, those of Bulgaria (1921-1922) for Rumania, and those of Bulgaria (1925-1928) for Greece and Yugoslavia.

A certain error was unquestionably introduced by the use of substitute reproduction rates for the minor divisions. However, this error is probably kept at a minimum where the specific fertility rates for the country as a whole are used for estimating reproduction rates in its component parts (cf. Glass, *op. cit.*, p. 391).

The gross reproduction rates were computed for periods centering on the census dates. In the majority of cases a two-year period was employed (e.g., 1930-1931 centered on a census taken in December 1930). In the following cases a three-year period was used: Estonia, France, Greece, Ireland, Italy, Luxemburg, United Kingdom (aside from Northern Ireland), and Yugoslavia. In each instance the years were centered on the date of the census. Single-year data were used for Germany (1933) and Northern Ireland (1931), the rates for the latter and for Lithuania (1932-1933) not being based on census age distributions, but on estimates as of the dates used.

Net reproduction rates were derived by the introduction of the appropriate mortality factors from the official life tables most nearly centered on the census dates. Official life tables were unavailable or inadequate for the following countries: Greece, Lithuania, Portugal, Rumania, Spain, and Yugoslavia. For these countries special computations were made from the official reporting of deaths and census age distribution of the female populations to determine appropriate  $L_x$  functions (except that the Polish life table was assumed to apply in Lithuania).

In general the life tables for the country as a whole were assumed to apply to their several divisions. The error involved in assuming national life tables to apply in each component area is obviously greatest in the larger countries with wide ranges of mortality conditions. Since fertility and mortality are directly correlated, this method tends to reduce the estimated net reproduction rate in areas of low fertility (e.g., the cities) and to over-state it in areas of high fertility. The errors are least in homogeneous countries of relatively low fertility and mortality, greatest where there are wide internal differences in fertility and mortality, and especially in Eastern Europe where the averages of both fertility and mortality are high.

If it were possible to obtain the appropriate mortality factors the estimated net reproduction rates would be modified in many instances. But experimentation suggested that relatively few rates

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would change categories as mapped in Figure 18 if so corrected, and the fundamental pattern would undoubtedly remain the same.

Owing to the methods of computation the gross reproduction rates may be regarded as generally more accurate than the net reproduction rates.

5. *Infant mortality, 1930-1931.* The figures present the number of infant deaths per 1,000 live births as averaged for the years 1930 and 1931. Infant mortality, when accurately reported, is one of the best measures of general material progress. Therefore, the data are presented here though they have not been mapped because of the serious inaccuracies of reporting in some sections of Europe.

As in other demographic indices the international comparability of infant mortality data is affected by differences of definition, especially as regards the inclusion or exclusion of stillbirths. The rates given here specifically exclude stillbirths.

A more serious source of non-comparability is the variation in completeness and accuracy of reporting. In the countries of Northern and Western Europe the rates may be regarded as accurate, but in the more rural sections of Eastern and Southern Europe there are clearly serious gaps in the data. Internal variations of reported rates in Poland and Yugoslavia, for example, reflect differences in the completeness of reporting in the several parts of the country quite as much as they do the true differences in the risk of death in infancy.

When effective registration of vital events is first introduced, and where the registration system is lax, infant deaths are usually less completely reported than births. Consequently, the reported infant mortality rates are lower than the actual. As the registration system improves, infant deaths are more fully recorded and the reported infant mortality may actually rise despite a rapid reduction in the true rate. Thus in countries of diverse registration systems (e.g., in Poland and Yugoslavia, where these were a legacy of earlier political regimes) the higher official infant mortality rates in the more developed sections of the country are almost certainly a function of better reporting of vital events in these areas.

In Europe as a whole, however, the patterns of infant mortality are probably rather accurately represented by the reported rates. In general, differentials in infant mortality are understated by the data since the errors of omission are most serious in the countries of highest infant mortality.

6. *Per cent illiterate at age 10 and over* (Figure 45). The simplest measure of educational attainment is illiteracy. In European censuses illiteracy is defined in two ways so as to include:

- (a) persons who can neither read nor write.
- (b) persons who cannot *both* read *and* write.

The latter is obviously a broader definition of illiteracy since it designates as illiterate those who can read but not write. In view of the somewhat broader use of definition (b) this was used where possible. Of those countries collecting literacy data in their censuses only Italy gave information exclusively according to definition (a).

The differences in the percentage of illiteracy according to the two definitions are generally of small consequence. They are most important in the Baltic countries of Latvia, Estonia, and Finland, where the educational system formerly laid stress on the ability to read as over against the ability to write. In these countries the illiteracy according to definition (a) was respectively 13.5, 3.9, and .8, but according to definition (b) 18.8, 8.0, and 14.0. The most marked contrast is that of Finland, where those unable to read are a negligible number as contrasted with those unable to write as well as read.

Since census enumeration does not involve an actual literacy test but simply the statement of the respondent, it may be assumed that the officially reported data are a minimum statement of the educational defect.

The following countries do not have data on illiteracy in recent censuses: Albania, Austria, Denmark, Germany, Ireland, Netherlands, Norway, Switzerland, and the United Kingdom. These countries are imposing in numbers and importance but the omissions are not so serious as they might appear. With the exception of Albania all have omitted literacy as a census question because illiteracy is now rare.

Estimates for the countries without recent census data on literacy were made on the basis of evidence from past censuses (Austria), from the literacy of military recruits (Germany, Netherlands, and Switzerland) and of persons applying for marriage licenses (United Kingdom and Ire-



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land), and from census data in neighboring countries (Albania, Denmark, Germany, and Norway). All of the countries mentioned except Albania were estimated to be less than five per cent illiterate in the country as a whole and in the major divisions, with the single exception of Carinthia in Austria. This district had an illiteracy percentage of 14.5 in 1910. The evidence used also suggested somewhat higher illiteracy than five per cent in a few of the outlying areas such as the western fringes of Ireland, the counties of Inverness and Ross and Cromarty in northern Scotland, and in the more northerly sections of Norway. But there was insufficient data for a precise estimate in these smaller divisions. Albania was assumed to have comparable illiteracy to the two Yugoslavian *banovina* adjoining that country.

In a few cases the official census tabulations of illiteracy did not give the necessary age distributions of illiteracy for the direct computation of illiteracy at ages 10 and over. In Belgium and Finland the official figures (relating respectively to persons aged 7 and over and 15 and over) were adjusted to arrive at a close approximation for ages 10 and over. In Rumania and Sweden the official figures were used (respectively ages 7 and over and 15 and over) on the assumption that the population 7-9 in Rumania, and that 10-14 in Sweden closely approximate the total average at ages 10 and over in these countries.

7. *Per cent dependent on agriculture* (Figure 46). The percentage of the total population that is dependent on agriculture is a good negative index of the degree of industrialization and urbanization and affords a rough dichotomous occupational distribution of the population.

The data given here relate to the total population (including non-productive persons as well as members of the labor force) dependent on agriculture for their means of subsistence. Thus it is a measure of the per cent of the population following agriculture as a way of life.

This index was used rather than the percentage of the labor force engaged in agriculture owing to the vagaries of census definitions of the agricultural labor force. Farm wives are variously and in different degrees included and excluded from the labor force (as noted above in Chapter IX), with the result that international comparisons purely on a labor force basis are extremely tenuous. This is true to a lesser extent even when the comparisons are confined to the per cent of the male labor force engaged in agriculture, since practices regarding the inclusion and exclusion of youths and old men in the agricultural labor force varies from country to country and as between the industrial and the agricultural countries.

A strict definition of agriculture was employed, excluding forestry and fishing, which are often included under the broader rubric of agriculture.

It will be noted that for a substantial number of countries the figures have been labelled as estimates. This arises chiefly from the fact that the following countries had no official data on the per cent of the population dependent on agriculture: Belgium, France, Greece, Ireland, Italy, Latvia, Netherlands, Norway, Portugal, and the United Kingdom. For these countries estimates were made on the basis of a regression line between (a) males engaged in agriculture as per cent of the total labor force and (b) per cent of the total population dependent on agriculture. This regression line was computed from the data of countries for which both types of material are available. A second degree parabola ( $y = a + bx + cx^2$ ) was fitted to these data, where  $x$  = per cent of the gainfully occupied males employed in agriculture and  $y$  = per cent of the population dependent on agriculture, the following values being obtained for  $a$ ,  $b$ , and  $c$ :

$a$	-.6
$b$	+.808927
$c$	+.0021238

The relationship between the two percentages is a close one, and it is empirically possible to make a close estimate of the one on the basis of the other.

No usable official data were obtained for Albania, Lithuania, Luxemburg, and Rumania. For Lithuania and Luxemburg estimates were made assuming an orderly reduction from previous censuses. Albania was arbitrarily assumed to fall in the same category as the two neighboring *banovina* of Yugoslavia. The Rumania figures were negatively estimated from the proportions of the population engaged in industry and commerce as reported in Volume X of the census of 1930.

8. *Per capita productivity in agriculture* (Figure 52). The figures are indices of the average per capita productivity of persons dependent on agriculture as related to European average equaling 100. They are derived from Wilbert Moore, *The Economic Demography of Eastern and Southern Europe* (Geneva: League of Nations, 1945), where the elaborate methods of computation are fully described. These are discussed in Chapter VIII, Footnote 26, above.

APPENDIX II

Representative Demographic Indices of the Interwar Period in Europe, by Minor Divisions

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931 age 10 +	% Illit-erate at age 10 +	% Depen-dent on Agri-culture	Per Cap-ita Pro-ductivity in Agric.	
ALBANIA (5/25/30).....	27.5	1,003	36	1	1	1	1	—	—	*65-75 <sup>1</sup>	*80 <sup>1</sup>	*22	ALBANIA (5/25/30)	
AUSTRIA (3/22/34).....	83.9	6,760 <sup>2</sup>	81	.36	16.4	13.8	2.6	.80	.66	104	*0-5	26	134	AUSTRIA (3/22/34)
1. Wien.....	.3	1,874	6,741	.07 <sup>2</sup>	9.6 <sup>2</sup>	13.8 <sup>2</sup>	-4.2 <sup>2</sup>	.30	.25	79	*0-5	1 <sup>3</sup>	54	1. Wien
2. Niederösterreich.....	19.3	1,509	78	.27 <sup>2</sup>	15.4 <sup>2</sup>	12.7 <sup>2</sup>	2.7 <sup>2</sup>	.91	.75	97	*0-5	33 <sup>2</sup>	168	2. Niederösterreich
3. Oberösterreich.....	12.0	902	75	.39	19.2	14.6	4.6	1.10	.91	122	*0-5	36	162	3. Oberösterreich
4. Salzburg.....	7.2	246	34	1.05	21.1	14.1	7.0	.98	.81	113	*0-5	31	118	4. Salzburg
5. Steiermark.....	16.4	1,015	62	.47	19.2	14.3	4.9	.99	.82	113	*0-5	38	106	5. Steiermark
6. Kärnten.....	9.5	405	42	.75	23.8	14.4	9.4	1.22	1.01	114	*5-10	37	109	6. Kärnten
7. Tirol.....	12.6	349	28	.98	21.5	13.4	8.1	1.05	.87	82	*0-5	34	114	7. Tirol
8. Vorarlberg.....	2.6	155	60	1.19	19.5	12.4	7.1	1.00	.83	65	*0-5	26	122	8. Vorarlberg
9. Burgenland.....	4.0	299	75	.09	22.7	14.2	8.5	1.40	1.16	133	*0-5	55	96	9. Burgenland
BELGIUM (12/31/30).....	30.5	8,092	265	.62	18.5	13.3	5.2	1.09	.91	88	*6	*15	220	BELGIUM (12/31/30)
1. Antwerpen.....	2.9	1,173	410	1.07	20.9	11.6	9.3	1.17	.98	91	*4	*11	184	1. Antwerpen
2. Brabant.....	3.3	1,680	512	.79	15.6	12.8	2.8	.88	.74	85	*5	*11	161	2. Brabant
3. West-Vlaanderen.....	3.2	902	279	.99	22.6	13.4	9.2	1.32	1.10	103	*8	*21	233	3. West-Vlaanderen
4. Oost-Vlaanderen.....	3.0	1,149	387	.47	20.5	13.3	7.2	1.19	.99	92	*8	*21	181	4. Oost-Vlaanderen
5. Hainaut.....	3.7	1,270	341	.06	15.1	14.5	.6	.94	.78	77	*8	*8	303	5. Hainaut
6. Liège.....	4.0	973	246	.26	15.0	13.8	1.2	.90	.76	76	*4	*9	390	6. Liège
7. Limburg.....	2.4	368	153	1.77	29.7	12.7	17.0	1.89	1.59	92	*4	*30	170	7. Limburg
8. Luxembourg.....	4.4	221	50	-1.12	18.7	14.0	4.7	1.19	1.00	79	*2	*35	235	8. Luxembourg
9. Namur.....	3.7	356	97	.11	16.7	15.2	1.5	1.07	.89	76	*2	*17	302	9. Namur
BULGARIA (12/31/34).....	103.0	6,078	59	1.30	30.4	16.5	13.9	1.70	1.20	147	31	75 <sup>4</sup>	47	BULGARIA (12/31/34)
1. Bourgas.....	13.6	555	41	1.68	35.9	18.2	17.7	2.08	1.48	173	32	73	56	1. Bourgas
2. Vratza.....	11.1	739	66	1.11	28.4	14.8	13.6	1.40	1.00	139	32	85	54	2. Vratza
3. Plovdiv.....	15.8	802	51	1.46	33.3	18.0	15.3	1.96	1.40	160	34	71	44	3. Plovdiv
4. Pléven.....	15.3	997	65	.83	25.2	14.5	10.7	1.31	.93	129	25	78	48	4. Pléven
5. Sofia.....	16.9	1,152	68	1.93	30.4	15.7	14.7	1.62	1.16	129	24	63	33	5. Sofia
6. Stara Zagora.....	15.6	813	52	.91	30.3	17.2	13.1	1.80	1.28	145	40	80	50	6. Stara Zagora
7. Choumen.....	14.7	1,020	70	1.18	31.7	18.2	13.5	1.79	1.28	164	36	75	47	7. Choumen
CZECHOSLOVAKIA (12/1/30).....	140.5	14,730	105	.71	22.1	14.3	7.8	1.22	.95	136	4	33	105	CZECHOSLOVAKIA (12/1/30)
1. Bohemia.....	52.1	7,109	137	.53	17.9	13.5	4.4	.95	.74	119	1	23	155	1. Bohemia
Praha.....	11.5	1,952	170	—	16.9	13.0	3.9	.86	.67	117	1	21	—	Praha
Pardubice.....	3.9	472	120	—	19.8	14.0	5.8	1.10	.86	110	2	33	—	Pardubice
Hradec Králové.....	3.4	498	146	—	17.4	14.0	3.4	.94	.73	103	1	25	—	Hradec Králové
Mladá Boleslav.....	5.4	848	156	—	16.2	13.6	2.6	.86	.67	103	1	22	—	Mladá Boleslav
Ceská Lípa.....	3.2	608	187	—	15.9	13.2	2.7	.85	.66	112	1	15	—	Ceská Lípa
Louny.....	4.3	811	187	—	18.4	13.4	5.0	.97	.76	128	1	16	—	Louny
Karlovy Vary.....	3.6	554	152	—	19.0	13.0	6.0	.99	.78	133	1	16	—	Karlovy Vary
Plzeň.....	8.8	797	90	—	20.1	13.7	6.4	1.12	.87	127	2	29	—	Plzeň
Ceské Budějovice.....	7.8	570	73	—	20.4	14.7	5.7	1.16	.91	134	2	38	—	Ceské Budějovice
2. Moravia-Silesia.....	26.8	3,565	133	.55	20.8	13.4	7.4	1.16	.90	118	1	27	129	2. Moravia-Silesia
Jihlava.....	5.6	458	82	—	21.2	14.0	7.2	1.26	.98	121	1	44	—	Jihlava
Brno.....	5.0	802	159	—	18.4	12.7	5.7	.99	.77	104	1	24	—	Brno
Olomouc.....	7.2	874	121	—	20.8	14.2	6.6	1.17	.91	119	1	29	—	Olomouc
Uherské Hradiště.....	3.1	380	121	—	24.6	13.8	10.8	1.41	1.10	122	2	40	—	Uherské Hradiště
Moravská Ostrava.....	4.5	708	157	—	20.9	13.3	7.6	1.14	.89	125	2	21	—	Moravská Ostrava
Ceský Těšín.....	1.3	343	269	—	21.6	11.6	10.0	1.17	.91	118	2	10	—	Ceský Těšín

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10 +	% Dependent on Agriculture	Per Capita Productivity in Agric.	
<b>CZECHOSLOVAKIA (12/1/30) (cont.)</b>														<b>CZECHOSLOVAKIA (12/1/30) (cont.)</b>
3. Slovakia.....	49.0	3,330	68	1.03	28.6	16.0	12.6	1.66	1.29	162	8	55	61	3. Slovakia
Turčiansky S. Martin.....	6.6	447	68	—	33.6	17.7	15.9	1.92	1.49	176	10	58	—	Turčiansky S. Martin
Liptovský S. Mikuláš.....	6.8	314	46	—	28.2	15.4	12.8	1.67	1.30	143	7	42	—	Liptovský S. Mikuláš
Košice.....	11.9	696	58	—	32.7	17.3	15.4	1.93	1.50	169	14	60	—	Košice
Zvolen.....	9.9	553	56	—	23.9	15.2	8.7	1.37	1.06	146	7	51	—	Zvolen
Bratislava.....	8.0	836	105	—	25.7	15.0	10.7	1.51	1.17	153	5	49	—	Bratislava
Nitra.....	5.8	484	83	—	28.4	15.6	12.8	1.66	1.29	177	6	65	—	Nitra
4. Subcarpathian Russia.....	12.6	725	57	1.79	39.9	18.4	21.5	2.39	1.85	170	31	58	42	4. Subcarpathian Russia
<b>DANZIG (8/18/29)</b> .....	1.9	408	215	.11	21.4	12.1	9.3	—	—	98	—	18	—	<b>DANZIG (8/18/29)</b>
<b>DENMARK (11/5/30)</b> .....	42.3	3,551	84	.82	18.4	11.1	7.3	1.10	.96	77*	*0-5	30	354	<b>DENMARK (11/5/30)</b>
1. Øerne (Islands).....	13.1	1,927	147	.92	16.2	11.4	4.8	.98	.85	77	—	—	—	1. Øerne (Islands)
Sjælland (incl. Copenhagen).....	7.3	1,399	191	1.10	15.6	11.6	4.0	.91	.79	77	—	16	349	Sjælland (incl. Copenhagen)
Bornholm.....	.6	46	78	.24	18.7	13.0	5.7	1.28	1.12	74	—	41	298	Bornholm
Lolland-Falster (Maribo).....	1.8	134	77	.16	18.1	10.5	7.6	1.17	1.02	88	—	39	461	Lolland-Falster (Maribo)
Fyn.....	3.4	348	101	.56	17.5	10.9	6.6	1.10	.97	71	—	35	331	Fyn
2. Jylland (Jutland).....	29.2	1,623	56	.71	21.0	10.7	10.3	1.33	1.16	78	—	40	—	2. Jylland (Jutland)
Østlige (East Jutland).....	7.2	580	80	.77	19.8	11.1	8.7	1.22	1.06	73	—	32	359	Østlige (East Jutland)
Nordlige (North Jutland).....	7.5	421	56	.66	21.7	10.7	11.0	1.42	1.24	85	—	45	531	Nordlige (North Jutland)
Vestlige (West Jutland).....	10.6	445	42	.68	22.2	10.1	12.1	1.43	1.25	79	—	47	359	Vestlige (West Jutland)
Sydlige (South Jutland).....	3.8	178	46	.71	20.1	10.5	9.6	1.25	1.09	71	—	39	375	Sydlige (South Jutland)
<b>ESTONIA (3/1/34)</b> .....	45.2	1,126	25	.17	17.4	15.6	1.8	.90	.73	102	8	56	99	<b>ESTONIA (3/1/34)</b>
<b>FINLAND (12/31/30)</b> .....	343.4	3,381*	10	.77	21.2	14.0	7.2	1.34	1.09	75	*14	60	65	<b>FINLAND (12/31/30)</b>
1. Uudenmaa.....	11.4	480	42	1.48	15.2	12.6	2.6	.82	.67	60	*6	32	87	1. Uudenmaa
2. Turu-Pori.....	21.7	489	23	.41	19.8	13.6	6.2	1.22	.99	59	*16	59	84	2. Turu-Pori
3. Ahvenanmaa.....	1.4	20	14	.28	17.4	16.5	.9	1.14	.93	49	*5	69	92	3. Ahvenanmaa
4. Häme.....	17.4	370	21	.74	19.4	13.1	6.3	1.15	.94	67	*11	54	72	4. Häme
5. Viipuri.....	31.3	588	19	.91	21.4	13.5	7.9	1.34	1.09	86	*15	58	55	5. Viipuri
6. Mikkeli.....	16.6	198	12	-.04	21.5	14.5	7.0	1.52	1.24	78	*19	73	67	6. Mikkeli
7. Kuopio.....	36.2	367	10	.54	24.1	14.3	9.8	1.66	1.35	79	*18	72	58	7. Kuopio
8. Vaasa.....	38.3	482	13	.49	22.8	15.6	7.2	1.49	1.21	74	*17	72	62	8. Vaasa
9. Oulu.....	169.0	386	2	1.20	27.7	15.7	12.0	1.99	1.61	90	*14	68	50	9. Oulu
<b>FRANCE (3/8/31)</b> .....	551.0	41,835	76	.44	17.8	16.0	1.8	1.10	.93	77	5	*28	176	<b>FRANCE (3/8/31)</b>
1. Ain.....	5.8	323	55	.02	16.6	17.4	-.8	1.12	.96	74	3	*45	151	1. Ain
2. Aisne.....	7.4	489	66	.93	21.4	15.9	5.5	1.45	1.23	78	7	*26	253	2. Aisne
3. Allier.....	7.4	374	51	-.04	14.7	16.9	-2.2	.99	.87	57	8	*43	221	3. Allier
4. Alpes (Basses-).....	7.0	88	13	-.51	14.8	17.0	-2.2	1.13	.95	77	4	*53	150	4. Alpes (Basses-)
5. Alpes (Hautes-).....	5.6	88	16	-.08	17.2	16.0	1.2	1.30	1.08	73	2	*51	97	5. Alpes (Hautes-)
6. Alpes-Maritimes.....	3.7	493	132	2.41	14.9	14.8	.1	.74	.63	78	6	*14	87	6. Alpes-Maritimes
7. Ardèche.....	5.6	283	51	-.51	17.0	17.2	-.2	1.17	.97	96	7	*59	95	7. Ardèche
8. Ardennes.....	5.2	294	56	.25	20.4	15.7	4.7	1.38	1.19	72	3	*17	252	8. Ardennes
9. Ariège.....	4.9	161	33	-.72	13.7	17.2	-3.5	.99	.85	73	10	*56	124	9. Ariège
10. Aube.....	6.0	242	40	.33	18.4	17.5	.9	1.18	1.00	75	3	*25	209	10. Aube
11. Aude.....	6.3	297	47	-.05	15.8	16.2	-.4	1.09	.92	67	11	*55	177	11. Aude
12. Aveyron.....	8.8	324	37	-.38	17.6	16.8	.8	1.24	1.04	89	4	*55	158	12. Aveyron
13. Belfort.....	.6	99	163	.35	20.3	14.2	6.1	1.24	1.07	69	2	*10	207	13. Belfort
14. Bouches-du-Rhône.....	5.2	1,102	210	2.50	14.8	14.5	.3	.84	.70	69	7	*9	218	14. Bouches-du-Rhône
15. Calvados.....	5.7	401	70	.34	22.4	18.3	4.1	1.40	1.16	93	3	*33	271	15. Calvados

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APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate age 10 +	% Dependent on Agriculture	Per Capita Productivity in Agric.	
FRANCE (3/8/31) (cont.)														FRANCE (3/8/31) (cont.)
16. Cantal.....	5.8	194	33	-.29	18.1	16.5	1.6	1.41	1.22	95	4	*61	178	16. Cantal
17. Charente.....	6.0	310	52	-.15	17.1	16.7	.4	1.18	1.03	61	9	*50	125	17. Charente
18. Charente-Inférieure.....	7.2	415	57	.01	18.0	17.3	.7	1.24	1.08	59	6	*44	133	18. Charente-Inférieure
19. Cher.....	7.3	294	40	-.36	14.4	17.0	-2.6	1.06	.93	56	8	*40	188	19. Cher
20. Corrèze.....	5.9	264	45	-.27	15.4	15.4	—	1.11	.96	70	12	*58	180	20. Corrèze
21. Corse.....	8.7	297	34	.90	13.0	11.2	1.8	.90	.75	92	18	*44	76	21. Corse
22. Côte-d'Or.....	8.8	334	38	.27	17.1	17.5	-.4	1.20	1.07	70	2	*29	264	22. Côte-d'Or
23. Côtes-du-Nord.....	7.2	540	75	-.32	20.5	17.3	3.2	1.41	1.14	86	9	*58	142	23. Côtes-du-Nord
24. Creuse.....	5.6	208	37	-.82	13.6	16.4	-2.8	1.02	.90	52	8	*65	175	24. Creuse
25. Dordogne.....	9.2	384	42	-.17	16.9	17.0	-.1	1.19	1.04	58	13	*61	129	25. Dordogne
26. Doubs.....	5.3	306	58	.45	20.5	16.0	4.5	1.31	1.10	83	2	*23	136	26. Doubs
27. Drôme.....	6.6	267	41	.09	15.4	17.2	-1.8	1.01	.86	70	4	*44	131	27. Drôme
28. Eure.....	6.0	306	51	.01	19.8	17.3	2.5	1.38	1.17	83	6	*36	214	28. Eure
29. Eure-et-Loir.....	5.9	255	43	.04	19.1	17.7	1.4	1.38	1.17	84	4	*44	189	29. Eure-et-Loir
30. Finistère.....	7.0	744	106	-.05	20.2	15.3	4.9	1.31	1.07	66	12	*46	121	30. Finistère
31. Gard.....	5.9	407	69	-.01	14.8	16.3	-1.5	.95	.80	78	6	*34	184	31. Gard
32. Garonne (Haute-).....	6.4	442	69	.51	15.1	18.4	-3.3	.98	.84	71	7	*37	142	32. Garonne (Haute-)
33. Gers.....	6.3	193	31	-.07	14.4	18.5	-4.1	1.08	.95	64	7	*70	193	33. Gers
34. Gironde.....	10.7	853	80	.25	15.4	17.5	-2.1	.96	.83	61	7	*27	175	34. Gironde
35. Hérault.....	6.2	515	83	.19	14.9	15.4	-.5	.92	.79	68	9	*42	218	35. Hérault
36. Ille-et-Vilaine.....	7.0	562	80	.09	21.0	17.5	3.5	1.32	1.08	80	4	*47	178	36. Ille-et-Vilaine
37. Indre.....	6.9	248	36	-.39	16.1	16.6	-.5	1.14	1.00	59	9	*55	179	37. Indre
38. Indre-et-Loire.....	6.2	335	54	.31	17.3	17.1	.2	1.18	1.02	68	4	*38	155	38. Indre-et-Loire
39. Isère.....	8.2	584	71	.57	16.9	17.3	-.4	1.02	.85	86	4	*30	153	39. Isère
40. Jura.....	5.0	229	45	-.24	18.1	17.9	.2	1.24	1.05	73	2	*38	130	40. Jura
41. Landes.....	9.4	257	27	-.32	15.4	15.9	-.5	1.05	.93	50	11	*52	132	41. Landes
42. Loir-et-Cher.....	6.4	242	38	-.29	17.5	16.3	1.2	1.23	1.09	57	6	*51	161	42. Loir-et-Cher
43. Loire.....	4.8	665	138	-.14	16.5	16.4	.1	1.01	.86	89	4	*20	158	43. Loire
44. Loire (Haute-).....	5.0	252	50	-.61	16.8	17.2	-.4	1.15	.94	98	5	*59	114	44. Loire (Haute-)
45. Loire-Inférieure.....	7.0	652	93	.10	18.2	17.7	.5	1.16	.98	58	5	*35	200	45. Loire-Inférieure
46. Loiret.....	6.8	343	50	.13	16.9	16.6	.3	1.18	1.02	63	5	*37	165	46. Loiret
47. Lot.....	5.2	167	32	-.56	14.3	19.7	-5.4	1.09	.94	79	8	*67	106	47. Lot
48. Lot-et-Garonne.....	5.4	248	46	.35	15.1	18.5	-3.4	1.09	.96	64	8	*58	168	48. Lot-et-Garonne
49. Lozère.....	5.2	102	20	-.67	16.7	14.6	2.1	1.30	1.10	75	3	*64	102	49. Lozère
50. Maine-et-Loire.....	7.2	476	66	.04	18.3	16.7	1.6	1.26	1.09	61	4	*44	216	50. Maine-et-Loire
51. Manche.....	6.4	433	68	.20	22.9	17.6	5.3	1.48	1.24	67	2	*48	212	51. Manche
52. Marne.....	8.2	412	50	.75	20.1	16.3	3.8	1.28	1.08	80	3	*24	227	52. Marne
53. Marne (Haute-).....	6.2	190	30	-.36	19.2	18.3	.9	1.41	1.21	73	2	*26	221	53. Marne (Haute-)
54. Mayenne.....	5.2	254	49	-.29	21.1	16.6	4.5	1.41	1.20	71	3	*56	211	54. Mayenne
55. Meurthe-et-Moselle.....	5.3	593	112	.89	22.1	15.8	6.4	1.38	1.14	88	4	*8	324	55. Meurthe-et-Moselle
56. Meuse.....	6.2	216	34	.30	20.0	17.1	2.9	1.45	1.22	81	2	*25	241	56. Meuse
57. Morbihan.....	7.1	538	76	-.05	21.9	16.5	5.4	1.49	1.21	82	12	*52	146	57. Morbihan
58. Moselle.....	6.2	693	111	1.11	21.6	12.4	9.5	1.36	1.14	88	2	*11	342	58. Moselle
59. Nièvre.....	6.9	255	37	-.53	14.9	18.5	-3.6	1.15	.99	65	4	*41	193	59. Nièvre
60. Nord.....	5.8	2,029	352	.82	20.7	14.6	6.1	1.17	.99	83	7	*8	303	60. Nord
61. Oise.....	5.9	407	69	.25	19.7	17.1	2.6	1.35	1.15	79	5	*24	255	61. Oise
62. Orne.....	6.1	274	44	-.13	20.0	18.6	1.4	1.34	1.14	83	3	*47	169	62. Orne
63. Pas-de-Calais.....	6.8	1,205	178	1.17	25.0	13.9	11.1	1.52	1.24	94	7	*14	237	63. Pas-de-Calais
64. Puy-de-Dôme.....	8.0	500	62	-.06	14.8	17.1	-2.3	.98	.85	68	4	*44	143	64. Puy-de-Dôme
65. Pyrénées (Basses-).....	7.7	423	55	.17	18.2	16.3	1.9	1.16	.98	68	7	*41	143	65. Pyrénées (Basses-)
66. Pyrénées (Hautes-).....	4.5	190	42	.10	16.2	17.9	-1.7	1.13	.96	68	6	*44	137	66. Pyrénées (Hautes-)
67. Pyrénées-Orientales.....	4.1	239	58	.47	14.0	13.9	.1	.87	.75	72	12	*42	254	67. Pyrénées-Orientales

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illt-erate at age 10 +	% De-pendent on Agri-culture	Per Cap-ita Pro-ductivity in Agric.	
FRANCE (3/8/31) (cont.)														FRANCE (3/8/31) (cont.)
68. Rhin (Bas-)	4.8	688	144	.59	19.5	14.4	5.1	1.15	.98	72	0	*20	214	68. Rhin (Bas-)
69. Rhin (Haut-)	3.5	517	148	.53	19.4	14.2	5.2	1.11	.96	62	1	*15	214	69. Rhin (Haut-)
70. Rhône	2.8	1,046	366	.48	16.3	15.9	.4	.91	.76	89	3	*11	175	70. Rhône
71. Saône (Haute-)	5.4	219	41	-.47	17.6	17.6	—	1.25	1.07	79	2	*38	145	71. Saône (Haute-)
72. Saône-et-Loire	8.6	539	62	-.36	16.8	16.5	.3	1.16	1.00	71	4	*39	168	72. Saône-et-Loire
73. Sarthe	6.2	385	62	-.01	20.4	17.5	2.9	1.37	1.16	93	5	*45	164	73. Sarthe
74. Savoie	6.2	236	38	.40	18.2	17.3	.5	1.28	1.05	90	3	*44	112	74. Savoie
75. Savoie (Haute-)	4.6	253	55	.65	17.2	17.2	.3	1.18	.98	75	2	*48	124	75. Savoie (Haute-)
76. Seine	.5	4,934	10,290	.79 <sup>a</sup>	16.1 <sup>a</sup>	14.8 <sup>a</sup>	1.3 <sup>a</sup>	.77	.63	84	3 <sup>a</sup>	*1 <sup>a</sup>	70	76. Seine
77. Seine-Inférieure	6.3	905	143	.26	21.6	16.7	4.9	1.29	1.04	91	5	*15	262	77. Seine-Inférieure
78. Seine-et-Marne	5.9	406	68	1.06	17.5	16.7	.6	1.22	1.04	85	4	*23	233	78. Seine-et-Marne
79. Seine-et-Oise	5.6	1,366	242	2.85 <sup>b</sup>	16.3 <sup>b</sup>	16.1 <sup>b</sup>	.2 <sup>b</sup>	.88	.74	88	3 <sup>b</sup>	*12 <sup>b</sup>	137	79. Seine-et-Oise
80. Sèvres (Deux-)	6.0	308	51	-.03	18.9	15.3	3.6	1.31	1.17	53	5	*58	202	80. Sèvres (Deux-)
81. Somme	6.3	467	74	.22	19.1	17.2	1.9	1.30	1.09	88	4	*27	235	81. Somme
82. Tarn	5.8	303	52	.05	16.0	16.8	-.8	1.06	.91	69	7	*43	155	82. Tarn
83. Tarn-et-Garonne	3.7	164	44	.21	15.7	19.1	-3.4	1.14	.98	84	7	*56	154	83. Tarn-et-Garonne
84. Var	6.0	377	63	1.40	14.2	15.5	-1.3	.92	.78	74	7	*19	316	84. Var
85. Vaucluse	3.6	242	68	.74	16.7	18.2	-1.5	1.03	.87	66	6	*39	224	85. Vaucluse
86. Vendée	7.0	390	56	-.14	20.7	15.9	4.8	1.39	1.21	45	6	*58	154	86. Vendée
87. Vienne	7.0	303	43	.01	17.6	15.3	2.0	1.24	1.09	58	8	*55	175	87. Vienne
88. Vienne (Haute-)	5.6	336	60	-.32	15.5	15.3	.2	1.00	.87	66	14	*44	167	88. Vienne (Haute-)
89. Vosges	5.9	378	64	-.12	19.7	16.0	3.7	1.24	1.05	81	2	*23	174	89. Vosges
90. Yonne	7.5	276	37	-.04	15.5	18.9	-3.4	1.22	1.06	72	4	*40	160	90. Yonne
GERMANY (6/16/33) (excl. Saar)	468.8	65,218	139	.67	16.8	11.1	5.7	.80	.70	84	*0-5	20	195	GERMANY (6/16/33) (excl. Saar)
Prussen	292.8	39,934	136	.66	16.8	11.0	5.8	.82	.72	84	—	20	207	Prussen
1. Ostpreussen	37.0	2,333	63	.70	21.3	12.5	8.8	1.22	1.06	98	—	40	165	1. Ostpreussen
Königsberg	13.1	957	73	1.08	20.8	13.0	7.8	1.12	.98	97	—	35	—	Königsberg
Gumbinnen	9.4	546	58	.25	19.8	12.0	7.8	1.19	1.04	89	—	46	—	Gumbinnen
Allenstein	11.5	552	48	.36	23.4	12.2	11.2	1.47	1.28	109	—	49	—	Allenstein
Westpreussen	2.9	277	95	.95	21.3	12.3	9.0	1.16	1.01	96	—	31	—	Westpreussen
2. Stadt Berlin	.9	4,242	4,802	.54 <sup>a</sup>	9.6 <sup>a</sup>	11.4 <sup>a</sup>	-1.8 <sup>a</sup>	.42	.37	72	—	1 <sup>a</sup>	100	2. Stadt Berlin
3. Brandenburg	39.0	2,726	70	1.14	16.0	12.6	3.4	.82	.71	86	—	27	224	3. Brandenburg
Potsdam	19.8	1,415	71	1.89 <sup>a</sup>	15.7 <sup>a</sup>	13.0 <sup>a</sup>	2.7 <sup>a</sup>	.80	.70	87	—	25 <sup>a</sup>	—	Potsdam
Frankfurt	19.2	1,311	68	.29	16.2	12.2	4.0	.84	.73	86	—	30	—	Frankfurt
4. Pommern	30.3	1,921	64	.61	18.2	11.4	6.8	1.04	.91	93	—	36	227	4. Pommern
Stettin	16.2	1,235	76	.78	17.8	11.7	6.1	.97	.84	92	—	30	—	Stettin
Köslin	14.1	686	49	.29	18.9	10.9	8.0	1.13	.98	92	—	47	—	Köslin
5. Grenz. Posen-Westpr.	7.7	338	44	.26	19.6	11.5	8.1	1.18	1.03	98	—	42	213	5. Grenz. Posen-Westpr.
6. Niederschlesien	26.6	3,204	120	.29	17.8	12.3	5.5	.92	.80	97	—	24	207	6. Niederschlesien
Breslau	12.9	1,944	151	.26	18.1	12.4	5.7	.94	.82	103	—	22	—	Breslau
Liegnitz	13.7	1,260	92	.34	17.2	12.3	4.9	.90	.78	88	—	27	—	Liegnitz
7. Oberschlesien	9.7	1,483	153	.73	24.9	12.8	12.1	1.29	1.13	124	—	25	179	7. Oberschlesien
8. Sachsen	25.5	3,400	133	.68	16.7	11.2	5.5	.83	.72	88	—	21	252	8. Sachsen
Magdeburg	11.6	1,304	112	.49	15.3	11.7	3.6	.79	.69	98	—	23	—	Magdeburg
Merseburg	10.2	1,486	146	.80	17.9	10.7	7.2	.88	.77	84	—	20	—	Merseburg
Erfurt	3.7	610	164	.79	16.8	11.3	5.5	.79	.69	79	—	20	—	Erfurt
9. Schleswig-Holstein	15.1	1,590	106	.92 <sup>a</sup>	16.1 <sup>a</sup>	11.0 <sup>a</sup>	5.1 <sup>a</sup>	.84	.73	81	—	21 <sup>a</sup>	289	9. Schleswig-Holstein
10. Hannover	38.8	3,368	87	.88	17.2	10.5	6.7	.86	.75	66	—	29	245	10. Hannover
Hannover	6.2	904	145	.74	13.8	10.5	3.3	.66	.58	66	—	20	—	Hannover
Hildesheim	5.1	594	117	.70	17.1	11.4	5.7	.81	.71	67	—	23	—	Hildesheim
Lüneburg	11.4	622	55	.91	16.7	10.5	6.2	.84	.74	64	—	33	—	Lüneburg

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agr. culture	Per Capita Productivity in Agric.	
GERMANY (6/16/33) (cont.)														GERMANY (6/16/33) (cont.)
10. Hannover (cont.)														10. Hannover (cont.)
Stade.....	6.8	468	69	.83 <sup>1</sup>	16.7 <sup>2</sup>	9.6 <sup>3</sup>	7.1 <sup>3</sup>	.95	.83	68	—	35 <sup>4</sup>	—	Stade
Osnabrück.....	6.2	467	75	1.32	22.0	10.3	11.7	1.10	.96	69	—	38	—	Osnabrück
Aurich.....	3.1	311	100	1.05	21.6	10.3	11.3	1.16	1.01	64	—	35	—	Aurich
11. Westfalen.....	20.2	5,040	249	.61	18.4	9.5	8.9	.84	.74	84	—	12	206	11. Westfalen
Münster.....	7.3	1,561	214	.65	23.9	10.9	13.0	1.02	.89	90	—	15	—	Münster
Minden.....	5.3	872	166	1.01	18.4	9.9	8.5	.82	.71	69	—	23	—	Minden
Arnsberg.....	7.6	2,607	340	.45	15.8	8.8	7.0	.75	.65	85	—	7	—	Arnsberg
12. Hessen-Nassau.....	16.8	2,585	153	.56	15.3	10.4	4.9	.71	.62	55	—	20	171	12. Hessen-Nassau
Kassel.....	10.9	1,149	106	.71	16.8	10.1	6.7	.83	.72	57	—	28	—	Kassel
Wiesbaden.....	6.0	1,436	241	.43	14.0	10.8	3.2	.62	.54	54	—	15	—	Wiesbaden
13. Rheinprovinz.....	24.0	7,632	318	.61	16.7	10.3	6.4	.75	.65	78	—	12	157	13. Rheinprovinz
Koblenz.....	5.7	763	134	.53	17.4	11.0	6.4	.88	.77	70	—	29	—	Koblenz
Düsseldorf.....	5.5	4,078	742	.52	16.1	9.7	6.4	.69	.60	80	—	5	—	Düsseldorf
Köln.....	4.0	1,544	388	.76	15.8	10.6	5.2	.67	.59	77	—	9	—	Köln
Trier.....	5.7	498	87	.80	19.6	10.9	8.7	1.06	.92	76	—	46	—	Trier
Aachen.....	3.1	748	239	.80	19.0	11.3	7.7	.91	.80	83	—	15	—	Aachen
14. Hohenzollerische L. Bayern.....	1.1	73	64	.18	17.2	12.5	4.7	.88	.77	83	—	48	136	14. Hohenzollerische L. Bayern
Oberbayern.....	16.7	1,776	106	1.08	18.9	12.3	6.6	.92	.80	106	—	31	167	Oberbayern
15. Niederbayern.....	10.7	770	72	.44	16.4	12.6	3.8	.75	.65	105	—	—	—	Niederbayern
Oberpfalz.....	9.6	652	68	—	23.9	14.8	9.1	1.35	1.17	166	—	—	—	Oberpfalz
17. Oberfranken.....	7.5	786	105	.51	24.1	13.6	10.5	1.28	1.12	141	—	—	—	Oberfranken
Mittelfranken.....	7.6	1,037	136	—	19.3	11.5	7.8	.93	.81	88	—	—	—	Mittelfranken
18. Unterfranken.....	8.4	796	94	.71	16.5	11.6	4.9	.74	.64	85	—	—	—	Unterfranken
19. Schwaben.....	9.9	878	89	.52	19.7	11.7	8.0	.99	.86	85	—	—	—	Schwaben
20. Pfalz.....	5.5	986	179	.87	17.4	12.3	5.1	.88	.77	100	—	—	—	Pfalz
21. Sachsen.....	15.0	5,197	347	.33	18.7	10.4	8.3	.92	.80	76	—	20	—	Sachsen
Chemnitz.....	2.1	1,038	499	.36	14.0	10.5	3.5	.59	.52	71	—	8	254	Chemnitz
Dresden-Bautzen.....	6.8	1,917	282	.36	15.2	10.0	5.2	.62	.55	69	—	5	—	Dresden-Bautzen
Leipzig.....	3.6	1,368	384	.46	6.8	10.9	2.7	.58	.51	67	—	10	—	Leipzig
Zwickau.....	2.5	874	345	.06	14.1	10.7	3.4	.58	.51	80	—	8	—	Zwickau
22. Württemberg.....	19.5	2,696	138	.83	13.3	10.0	3.3	.58	.51	69	—	6	—	Württemberg
Neckarkreis.....	3.2	1,036	320	—	17.1	11.5	5.6	.83	.72	67	—	27	142	Neckarkreis
Schwarzwaldkreis.....	4.8	620	130	—	15.8	10.6	5.2	.70	.61	58	—	16	—	Schwarzwaldkreis
Jagstkreis.....	5.2	430	82	—	18.2	11.7	6.5	.87	.76	68	—	29	—	Jagstkreis
Donaukreis.....	6.3	609	97	—	18.1	12.4	5.7	.99	.86	72	—	42	—	Donaukreis
23. Baden.....	15.1	2,413	160	.57	17.4	12.1	5.3	.92	.80	77	—	35	—	Baden
Konstanz.....	3.8	353	92	—	17.9	11.4	6.5	.84	.73	71	—	24	126	Konstanz
Freiburg.....	5.0	631	125	—	17.9	12.4	5.5	.95	.83	76	—	35	—	Freiburg
Karlsruhe.....	2.6	688	261	—	18.7	12.7	6.0	.91	.80	62	—	31	—	Karlsruhe
Mannheim.....	3.5	741	210	—	17.3	10.6	6.7	.78	.68	73	—	18	—	Mannheim
24. Thüringen.....	11.8	1,660	141	.58	17.8	10.6	7.2	.78	.68	73	—	18	—	Thüringen
25. Hessen.....	7.7	1,429	186	.62	16.0	10.6	5.4	.76	.67	78	—	17	232	Hessen
Starkenburg.....	3.0	666	222	—	16.7	10.5	6.2	.76	—	59	—	21	154	Starkenburg
Oberhessen.....	3.3	343	104	—	16.0	9.3	6.7	.74	.64	58	—	14	—	Oberhessen
Rheinhausen.....	1.4	421	300	—	17.0	11.0	6.0	.84	.73	52	—	33	—	Rheinhausen
26. Hamburg.....	.4	1,218	2,936	.71 <sup>3</sup>	17.6	12.2	5.4	.72	.63	68	—	22	—	Hamburg
27. Mecklenburg.....	16.0	805	50	.99	13.0 <sup>3</sup>	11.4 <sup>3</sup>	1.6 <sup>3</sup>	.54	.48	71	—	2 <sup>3</sup>	76	Mecklenburg
28. Oldenburg.....	6.4	574	89	1.23	17.5	12.5	5.0	.99	.86	96	—	37	264	Oldenburg
Oldenburg.....	5.4	467	87	—	20.1	9.1	11.0	1.02	.89	67	—	33	233	Oldenburg
Lübeck.....	.5	48	89	—	20.6	9.0	11.6	1.06	.92	67	—	34	—	Lübeck
Birkenfeld.....	.5	58	116	—	16.3	10.1	6.2	.85	.74	86	—	26	—	Birkenfeld
					19.4	9.2	10.2	.88	.77	56	—	24	—	

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APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census													
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agriculture	Per Capita Productivity in Agric.														
GERMANY (6/16/33) (cont.)														GERMANY (6/16/33) (cont.)													
29. Braunschweig.....	3.7	513	140	1.08	14.9	11.1	3.8	.75	.66	79	—	18	275	29. Braunschweig													
30. Bremen.....	.2	372	1,442	1.44 <sup>a</sup>	16.4 <sup>a</sup>	11.4 <sup>a</sup>	5.0 <sup>a</sup>	.60	.53	64	—	2 <sup>a</sup>	187	30. Bremen													
31. Anhalt.....	2.3	364	158	1.48	16.4	11.4	5.0	.81	.71	91	—	17	247	31. Anhalt													
32. Lippe.....	1.2	176	144	.97	17.9	9.9	8.0	.82	.72	58	—	21	225	32. Lippe													
33. Lübeck.....	.3	136	458	1.57	13.9	11.8	2.1	.64	.56	94	—	5	198	33. Lübeck													
34. Schaumburg-Lippe.....	.3	50	147	.73	14.6	11.0	3.6	.69	.60	62	—	20	326	34. Schaumburg-Lippe													
35. Saarland (6/25/35).....	1.9	811	424	.64	20.3	10.1	10.2	1.10	.96	86	—	6	—	35. Saarland (6/25/35)													
GREECE (5/15/28)														GREECE (5/15/28)													
1. Central Greece and Euboea.....	25.0	1,593	64	2.52	27.8	15.6	12.2	1.56	1.09	117	41	46	50	1. Central Greece and Euboea													
2. Thessaly.....	13.3	493	37	1.37	30.8	18.5	12.3	1.88	1.32	115	34	26	54	2. Thessaly													
3. Ionian Islands.....	1.9	213	111	.86	23.5	13.9	9.6	1.47	1.03	114	43	56	51	3. Ionian Islands													
4. Cyclades.....	2.6	130	50	1.02	29.3	14.3	15.0	2.17	1.52	95	45	55	31	4. Cyclades													
5. Peloponnesus.....	22.3	1,053	47	1.36	29.6	15.7	13.9	2.17	1.20	108	38	40	32	5. Peloponnesus													
6. Macedonia.....	34.9	1,412	40	2.48	38.8	20.7	18.1	1.71	1.20	114	40	58	50	6. Macedonia													
7. Epirus.....	9.4	313	33	1.19	33.4	16.9	16.5	2.19	1.53	126	43	50	50	7. Epirus													
8. Aegean Islands.....	3.8	308	80	1.45	24.6	14.1	10.5	1.81	1.27	102	50	56	38	8. Aegean Islands													
9. Crete.....	8.3	386	47	1.34	26.0	12.6	13.4	1.57	1.10	104	37	34	58	9. Crete													
10. Western Thrace.....	8.7	303	35	2.91	36.6	22.4	14.2	1.47	1.03	101	43	58	50	10. Western Thrace													
133	61	60	51	2.30	1.61	157	9	51	78																		
HUNGARY (12/31/30)														HUNGARY (12/31/30)													
1. Transdanubia.....	93.1	8,688	93	.76	24.6	16.1	8.5	1.34	1.01	157	9	51	78	1. Transdanubia													
Baranya.....	36.9	2,686	73	.44	24.0	15.9	8.1	1.44	1.05	149	8	61	—	Baranya													
Fejér.....	4.0	312	78	.62	21.3	17.9	3.4	1.22	.89	159	9	55	102	Fejér													
Győr, Moson és Pozsony.....	4.1	271	66	.61	25.7	15.3	10.4	1.59	1.16	135	9	64	92	Győr, Moson és Pozsony													
Komárom és Esztergom.....	2.4	205	86	.55	25.1	14.7	10.4	1.51	1.10	125	5	52	98	Komárom és Esztergom													
Somogy.....	2.0	179	90	.89	25.2	14.3	10.9	1.59	1.16	141	6	40	87	Somogy													
Sopron.....	6.7	386	58	.30	22.8	16.8	6.0	1.28	.94	191	10	69	108	Sopron													
Tolna.....	1.9	179	92	.27	24.1	14.8	9.3	1.54	1.13	126	3	59	98	Tolna													
Vas.....	3.6	269	75	.14	22.0	17.2	4.8	1.28	.94	143	8	67	88	Vas													
Veszprém.....	3.3	275	83	.22	24.3	14.3	10.0	1.28	.94	143	8	67	88	Veszprém													
Zala.....	4.0	244	61	.69	26.0	15.7	10.3	1.51	1.11	118	5	58	93	Zala													
2. Great Plain.....	4.9	365	75	.31	25.1	16.1	9.0	1.60	1.17	157	7	62	93	2. Great Plain													
Bács-Bodrog.....	42.1	4,867	115	.97	24.0	16.1	7.9	1.50	1.10	159	10	70	69	Bács-Bodrog													
Békés.....	1.9	137	73	.88	21.6	16.6	5.0	1.29	.94	161	10	45	—	Békés													
Bihar.....	3.7	331	90	.42	24.4	17.1	7.3	1.24	.90	151	15	67	84	Bihar													
Csanád, Arad és Torontál.....	2.8	176	64	.64	28.9	17.5	11.4	1.41	1.03	166	8	64	83	Csanád, Arad és Torontál													
Csongrád.....	2.0	174	87	.29	23.8	15.7	8.1	1.78	1.30	171	12	77	76	Csongrád													
Hajdu.....	3.5	344	99	.34	22.1	16.9	5.2	1.37	1.00	164	13	71	91	Hajdu													
Jász-Nagykun-Szolnok.....	3.3	296	88	.73	28.9	17.5	11.4	1.22	.90	167	10	53	44	Jász-Nagykun-Szolnok													
Pest-Pilis-Solt-Kiskun.....	5.2	412	78	.46	27.1	16.0	11.1	1.63	1.20	173	10	52	52	Pest-Pilis-Solt-Kiskun													
Budapest.....	12.8	1,446	113	1.39 <sup>a</sup>	23.0 <sup>a</sup>	14.3 <sup>a</sup>	8.7 <sup>a</sup>	1.64	1.20	152	14	64	85	Budapest													
Szabolcs és Ung.....	.2	1,006	4,861	1.12 <sup>a</sup>	16.5 <sup>a</sup>	15.8 <sup>a</sup>	.7 <sup>a</sup>	1.28	.94	157	9 <sup>a</sup>	26 <sup>a</sup>	61	Szabolcs és Ung													
Szatmár, Ugocsa és Bereg.....	4.7	395	85	1.21	36.2	19.1	17.1	.71	.52	121	3 <sup>a</sup>	— <sup>a</sup>	52	Szatmár, Ugocsa és Bereg													
3. North.....	2.1	150	71	.99	34.9	18.5	16.4	2.17	1.59	193	21	70	69	3. North													
Abaúj-Torna.....	14.0	1,136	81	.66	28.1	16.2	11.9	2.06	1.51	193	18	75 <sup>a</sup>	75	Abaúj-Torna													
Borsod, Gömör és Kishont.....	1.7	91	54	.41	29.4	16.5	12.9	1.63	1.20	163	12	57 <sup>a</sup>	—	Borsod, Gömör és Kishont													
Heves.....	4.0	358	91	1.00	27.4	15.9	11.5	1.78	1.30	165	12	73	78	Heves													
Nógrád és Hont.....	3.8	317	84	.44	27.8	16.7	11.1	1.55	1.13	158	10	47	68	Nógrád és Hont													
Zemplén.....	2.9	223	77	.54	27.5	15.1	12.4	1.62	1.19	181	14	65	59	Zemplén													
1.8	146	83	.65	30.8	17.2	13.6	1.63	1.20	150	11	51	76	Zemplén														
1.79	1.31	159	44	61	70																						
ICELAND (12/2/30)														ICELAND (12/2/30)													
103.0	109	1	1.26	25.9	11.7	14.2	—	—	45	*0-5	36	—	—	ICELAND (12/2/30)													

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agriculture	Per Capita Productivity in Agric.	
IRELAND (6/26/36)	68.9	2,968	43	-.01	19.6	14.3	5.3	1.42	1.19	69	*0-5	*53	93	IRELAND (6/26/36)
1. Leinster	19.6	1,220	62	.60	21.2	15.1	6.1	1.41	1.18	81	—	*34	94	1. Leinster
2. Munster	24.1	942	39	-.29	19.0	14.1	4.9	1.38	1.16	66	—	*53	119	2. Munster
3. Connacht	17.1	525	31	-.51	17.7	13.0	4.7	1.52	1.27	49	—	*79	71	3. Connacht
4. Ulster (part of)	8.0	280	35	-.68	17.2	13.9	3.3	1.42	1.19	55	—	*75	77	4. Ulster (part of)
ITALY (4/21/31)	310.2	41,177	133	.85	25.8	14.5	11.3	1.59	1.15	110	22	*44	73	ITALY (4/21/31)
1. Piemonte	29.4	3,498	119	.29	17.2	13.7	3.5	.98	.79	89	4	*40	96	1. Piemonte
2. Liguria	5.4	1,437	264	.73	16.3	12.0	4.3	.91	.73	70	7	*21	81	2. Liguria
3. Lombardia	23.7	5,545	234	.92	23.2	14.6	8.6	1.30	1.05	130	4	*30	94	3. Lombardia
4. Venezia Tridentina	13.6	660	48	.56	22.9	14.5	8.4	1.41	1.14	107	1	*49	66	4. Venezia Tridentina
5. Veneto	25.5	4,123	162	.46	26.7	12.3	14.4	1.66	1.34	86	11	*48	66	5. Veneto
6. Venezia Giulia e Zara	9.0	979	109	.59	21.0	13.4	7.6	1.23	.99	112	13	*33	50	6. Venezia Giulia e Zara
7. Emilia	22.1	3,218	145	.66	23.3	12.6	9.7	1.38	1.12	88	16	*54	96	7. Emilia
8. Toscana	22.9	2,892	126	.49	20.1	12.3	7.8	1.18	.96	72	19	*41	81	8. Toscana
9. Marche	9.7	1,218	126	.66	26.3	13.2	13.1	1.64	1.34	85	28	*58	74	9. Marche
10. Umbria	8.5	694	82	.83	25.7	13.1	12.6	1.68	1.37	91	28	*59	75	10. Umbria
11. Lazio	17.2	2,385	139	2.17	26.3	13.0	13.3	1.61	1.31	90	20	*36	61	11. Lazio
12. Abruzzi e Molise	15.4	1,498	97	.98	31.6	16.7	14.9	2.00	1.45	120	36	*66	51	12. Abruzzi e Molise
13. Campania	13.5	3,495	259	1.24	32.7	16.7	16.0	2.12	1.53	116	37	*37	62	13. Campania
14. Puglie	19.3	2,486	129	1.25	33.9	18.3	15.6	2.26	1.64	143	41	*52	51	14. Puglie
15. Lucania	10.0	508	51	1.13	36.6	21.6	15.0	2.43	1.76	161	49	*64	98	15. Lucania
16. Calabria	15.1	1,669	111	1.27	33.6	15.9	17.7	2.18	1.58	118	50	*57	52	16. Calabria
17. Sicilia	25.7	3,897	152	.58	29.3	16.1	13.2	1.91	1.39	133	42	*49	62	17. Sicilia
18. Sardegna	24.1	973	40	1.30	30.1	15.3	14.8	2.00	1.45	109	38	*57	61	18. Sardegna
LATVIA (2/11/30)	65.8	1,900	29	1.37	19.5	14.1	5.4	.99	.82	88	19	*55	111	LATVIA (2/11/30)
1. Riga (City)	.2	378	1,794	4.86	15.2	13.7	1.5	.57	.47	70	7	*1	—	1. Riga (City)
2. Vidzeme	23.1	405	18	-.06	15.9	14.0	1.9	.92	.76	62	8	*68	133	2. Vidzeme
3. Kurzeme	13.2	288	22	.49	17.2	14.3	2.9	.92	.76	79	12	*53	141	3. Kurzeme
4. Zemgale	13.6	288	21	1.85	17.4	14.3	3.1	.96	.79	92	17	*68	144	4. Zemgale
5. Latgale	15.7	541	34	.90	27.6	14.3	13.3	1.48	1.22	109	41	*80	68	5. Latgale
LITHUANIA (12/31/30) <sup>1</sup>	54.8	2,367	43	1.16	27.4	15.8	11.6	1.48	1.10	150	33 <sup>1</sup>	*60-70	73	LITHUANIA (12/31/30) <sup>1</sup>
LUXEMBURG (12/31/30)	2.6	300	115	1.00	20.6	13.1	7.5	1.16	.96	88	—	*25-30	126	LUXEMBURG (12/31/30)
NETHERLANDS (12/31/30)	32.6	7,936	244	1.26	22.7	9.4	13.3	1.43	1.28	51	*0-5	*18	259	NETHERLANDS (12/31/30)
1. Noordbrabant	5.0	898	181	1.71	29.1	10.3	18.8	1.98	1.77	71	—	*23	227	1. Noordbrabant
2. Gelderland	5.0	829	165	1.18	23.4	10.0	13.4	1.57	1.40	56	—	*26	259	2. Gelderland
3. Zuidholland	2.9	1,958	669	1.28	21.0	8.7	12.3	1.26	1.12	40	—	*10	218	3. Zuidholland
4. Noordholland	2.7	1,510	551	1.32	19.1	9.1	10.0	1.10	.99	39	—	*9	210	4. Noordholland
5. Zeeland	1.8	248	139	.20	19.2	9.9	9.3	1.28	1.15	50	—	*38	334	5. Zeeland
6. Utrecht	1.4	407	299	1.69	21.7	9.2	12.5	1.35	1.21	43	—	*12	407	6. Utrecht
7. Friesland	3.2	400	123	.51	21.6	10.5	11.1	1.47	1.31	39	—	*36	267	7. Friesland
8. Overijssel	3.4	521	155	1.37	24.0	9.2	14.8	1.55	1.38	56	—	*22	337	8. Overijssel
9. Groningen	2.3	392	171	.73	20.7	9.2	11.5	1.34	1.20	44	—	*26	259	9. Groningen
10. Drenthe	2.7	222	84	.82	25.9	9.4	16.5	1.88	1.68	54	—	*43	252	10. Drenthe
11. Limburg	2.2	551	251	1.62	28.6	9.4	19.2	1.92	1.72	68	—	*19	230	11. Limburg
NORWAY (12/1/30)	308.6	2,814	9	.55	16.7	10.7	6.0	1.04	.89	46	*0-5	*27	116	NORWAY (12/1/30)
1. Østfold	3.9	167	43	.42	16.4	10.2	6.2	1.04	.89	58	—	*22	158	1. Østfold
2. Akershus	5.0	237	47	1.79 <sup>2</sup>	17.2 <sup>2</sup>	9.1 <sup>2</sup>	8.1 <sup>2</sup>	.92	.78	44	—	*21 <sup>2</sup>	133	2. Akershus



APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illit-erate at age 10+	% Dependent on Agriculture	Per Capita Productivity in Agric.	
NORWAY (12/1/30) (cont.)														NORWAY (12/1/30) (cont.)
3. Oslo	.02	253	15,671	-.22 <sup>a</sup>	9.2 <sup>a</sup>	11.1 <sup>a</sup>	-1.9 <sup>a</sup>	.42	.36	44	—	— <sup>a</sup>	—	3. Oslo
4. Hedmark	26.3	158	6	.57	19.2	10.3	8.9	1.41	1.21	44	—	*38	126	4. Hedmark
5. Opland	23.7	138	6	.64	18.3	10.4	7.9	1.28	1.09	36	—	*52	110	5. Opland
6. Buskerud	14.0	143	10	.37	14.9	9.9	5.0	.98	.84	42	—	*27	114	6. Buskerud
7. Vestfold	2.2	134	59	.61	14.6	10.5	4.1	.93	.80	49	—	*19	158	7. Vestfold
8. Telemark	14.1	128	9	.22	14.7	10.3	4.4	.96	.88	46	—	*24	111	8. Telemark
9. Aust-Agder	8.8	74	8	.04	15.3	12.8	2.5	1.08	.93	49	—	*25	97	9. Aust-Agder
10. Vest-Agder	6.8	81	12	.06	15.7	12.2	3.5	1.07	.92	49	—	*33	96	10. Vest-Agder
11. Rogaland	8.7	173	20	.53	18.1	10.9	7.2	1.17	1.00	45	—	*29	159	11. Rogaland
12. Hordaland	15.1	164	11	.61	18.8	10.9	7.9	1.32	1.13	38	—	*37	98	12. Hordaland
13. Bergen	.04	98	2,798	.59	14.4	10.3	4.1	.73	.63	41	—	*1	—	13. Bergen
14. Sogn og Fjordane	17.8	92	5	.32	18.1	12.1	6.0	1.31	1.12	36	—	*58	100	14. Sogn og Fjordane
15. Møre og Romsdal	14.6	165	11	.42	17.2	11.0	6.2	1.14	.98	43	—	*36	93	15. Møre og Romsdal
16. Sør-Trøndelag	17.9	175	10	.45	16.5	11.3	5.2	1.04	.89	44	—	*31	93	16. Sør-Trøndelag
17. Nord-Trøndelag	21.0	96	5	.65	18.4	11.4	7.0	1.28	1.09	43	—	*49	97	17. Nord-Trøndelag
18. Nordland	36.1	187	5	.78	20.3	10.2	10.1	1.41	1.20	47	—	*27	101	18. Nordland
19. Troms	25.4	97	4	.78	19.9	11.4	8.5	1.40	1.20	65	—	*24	111	19. Troms
20. Finnmark	46.9	53	1	1.57	24.9	12.3	12.6	1.82	1.56	82	—	*10	134	20. Finnmark
POLAND (12/9/31)														POLAND (12/9/31)
Central Poland														Central Poland
1. M. st. Warszawa	.1	1,179	9,431	1.35 <sup>a</sup>	18.1 <sup>a</sup>	12.5 <sup>a</sup>	5.6 <sup>a</sup>	.70	.53	121	13 <sup>a</sup>	— <sup>a</sup>	59	1. M. st. Warszawa
2. Warszawa	29.5	2,544	86	1.54 <sup>a</sup>	33.8 <sup>a</sup>	16.5 <sup>a</sup>	17.3 <sup>a</sup>	1.93	1.40	149	29 <sup>a</sup>	60 <sup>a</sup>	—	2. Warszawa
3. Łódź	19.0	2,648	139	1.23	29.3	15.0	14.3	1.54	1.11	148	27	48	47	3. Łódź
4. Kielce	25.6	2,953	115	1.34	32.9	15.2	17.7	1.78	1.29	135	33	56	44	4. Kielce
5. Lublin	31.2	2,480	80	1.51	32.4	13.9	18.5	1.81	1.31	104	33	71	49	5. Lublin
6. Białystok	32.4	1,654	51	1.91	34.2	15.6	18.6	1.88	1.36	127	33	69	50	6. Białystok
Eastern Poland														Eastern Poland
7. Wilno	29.0	1,284	44	1.84	30.9	15.7	15.2	1.72	1.25	120	39	72	43	7. Wilno
8. Nowogródek	23.0	1,063	46	2.11	37.1	15.9	21.2	2.05	1.49	117	42	82	43	8. Nowogródek
9. Polesie	36.7	1,139	31	3.05	43.6	17.2	26.4	2.20	1.60	115	50	80	50	9. Polesie
10. Wolyń	35.8	2,098	59	2.19	32.0	13.5	18.5	1.89	1.37	125	50	79	39	10. Wolyń
Western Poland														Western Poland
11. Poznań	26.6	2,119	80	.78	27.3	13.8	13.5	1.44	1.05	146	4	47	102	11. Poznań
12. Pomorze	16.4	1,087	66	1.37	32.4	15.5	16.9	1.84	1.34	171	6	51	86	12. Pomorze
13. Śląsk	4.2	1,303	309	1.22	28.3	13.1	15.2	1.43	1.04	154	2	12	96	13. Śląsk
Southern Poland														Southern Poland
14. Kraków	17.4	2,312	133	1.30	32.9	16.9	16.0	1.83	1.33	154	17	59	44	14. Kraków
15. Lwów	28.4	3,146	111	1.03	29.9	17.0	12.9	1.67	1.22	169	25	68	37	15. Lwów
16. Stanisławów	16.9	1,489	88	1.29	36.6	21.8	14.8	1.91	1.40	198	37	74	34	16. Stanisławów
17. Tarnopol	16.5	1,610	97	.95	28.6	16.5	12.1	1.57	1.15	157	31	79	37	17. Tarnopol
PORTUGAL (12/1/30)														PORTUGAL (12/1/30)
1. Minho														1. Minho
Braga	2.7	415	152	1.21	33.9	17.4	16.5	2.12	1.51	135	64	*52 <sup>o</sup>	52	Braga
Pôrto	2.3	810	355	1.45	32.6	18.9	13.7	1.92	1.36	167	50	*27	50	Pôrto
Viana do Castelo	2.1	240	114	.68	28.3	16.2	12.1	1.69	1.20	120	63	*62 <sup>o</sup>	51	Viana do Castelo
2. Traz-os-Montes														2. Traz-os-Montes
Bragança	6.5	185	28	1.05	35.7	21.8	13.9	2.54	1.81	156	70	*63 <sup>o</sup>	44	Bragança
Vila Real	4.2	254	60	1.04	34.0	18.2	15.8	2.28	1.62	127	64	*65	46	Vila Real
3. Douro														3. Douro
Aveiro	2.8	382	138	1.10	30.6	14.9	15.7	1.92	1.37	111	59	*47	48	Aveiro
Coimbra	4.0	388	98	.78	25.1	14.4	10.7	1.59	1.13	103	63	*51	40	Coimbra

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census													
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agr. culture	Per Capita Productivity in Agric.														
PORTUGAL (12/1/30) (cont.)														PORTUGAL (12/1/30) (cont.)													
4. Beira														4. Beira													
Castelo Branco.....	6.7	266	40	1.11	31.6	15.3	16.3	2.10	1.50	121	75	*53	40	Castelo Branco													
Guarda.....	5.5	268	49	.67	32.0	19.1	12.9	2.09	1.49	156	67	*53	40	Guarda													
Viseu.....	5.0	431	86	.68	30.8	16.8	14.0	2.00	1.42	115	67	*64	37	Viseu													
5. Estremadura														5. Estremadura													
Leiria.....	3.4	314	92	1.17	30.5	15.5	15.0	2.00	1.43	118	70	*53	46	Leiria													
Lisboa.....	2.7	906	330	1.78	23.5	18.7	4.8	1.32	.94	186	38	*17	101	Lisboa													
Santarém.....	6.7	378	57	1.34	28.6	13.8	14.8	1.88	1.34	111	64	*59	73	Santarém													
Setúbal.....	5.1	234	46	—	30.4	17.7	12.7	2.01	1.43	173	62	*43	47	Setúbal													
6. Alemtejo														6. Alemtejo													
Beja.....	10.3	240	23	1.57	28.7	15.1	13.6	1.98	1.41	138	74	*61	77	Beja													
Évora.....	7.4	181	24	1.50	29.2	15.1	14.1	1.97	1.40	135	67	*63	78	Évora													
Portalegre.....	6.1	166	27	1.16	29.3	15.0	14.3	1.98	1.41	128	67	*61	78	Portalegre													
7. Algarve														7. Algarve													
Faro.....	5.1	301	59	.82	26.1	15.5	10.6	1.66	1.18	140	68	*48	25	Faro													
8. Islands														8. Islands													
Angra do Heroísmo.....	.7	70	101	.74	28.0	18.5	9.5	1.79	1.27	172	58	—	—	Angra do Heroísmo													
Horta.....	.8	49	65	.65	23.9	15.4	8.5	1.58	1.12	134	44	—	—	Horta													
Ponta Delgada.....	.8	134	159	1.38	33.1	20.0	13.1	2.25	1.60	204	64	—	—	Ponta Delgada													
Funchal.....	.8	212	270	1.65	36.9	16.8	20.1	2.30	1.63	149	71	—	—	Funchal													
RUMANIA (12/29/30)														RUMANIA (12/29/30)													
1. Oltenia.....	24.1	1,513	63	1.44	33.7	20.4	13.3	2.11	1.37	166	*50	*86 <sup>a</sup>	—	1. Oltenia													
2. Muntenia.....	52.5	4,029	77	2.33	35.4	20.1	15.3	2.22	1.44	181	*42	*64 <sup>a</sup>	—	2. Muntenia													
3. Dobrogea.....	23.3	815	35	.64	39.2	23.7	15.5	2.70	1.75	204	*47	*79 <sup>a</sup>	48 <sup>b</sup>	3. Dobrogea													
4. Moldova.....	38.0	2,434	64	1.66	39.9	21.4	18.5	2.48	1.61	182	*43	*75 <sup>a</sup>	—	4. Moldova													
5. Basarabia.....	44.4	2,864	64	.09	38.3	20.8	17.5	2.57	1.67	181	*62	*86 <sup>a</sup>	45	5. Basarabia													
6. Bucovina.....	10.4	853	82	—	31.3	19.0	12.3	1.88	1.22	188	*34	*70 <sup>a</sup>	45	6. Bucovina													
7. Transilvania.....	62.2	3,218	52	—	30.1	18.5	11.6	2.01	1.30	158	*32	*67 <sup>a</sup>	—	7. Transilvania													
8. Banat.....	18.7	940	50	1.05 <sup>10</sup>	21.3	18.7	2.6	1.25	.81	168	*28	*57 <sup>a</sup>	51 <sup>10</sup>	8. Banat													
9. Crişana şi Maramureş.....	21.3	1,390	65	—	28.8	19.1	9.7	1.77	1.15	190	*38	*69 <sup>a</sup>	—	9. Crişana şi Maramureş													
SPAIN (12/31/30)														SPAIN (12/31/30)													
1. Andalucía														1. Andalucía													
Almería.....	8.8	342	39	.02	34.0	18.9	15.1	—	—	108	47	—	69	Almería													
Cádiz.....	7.3	508	69	.79	35.1	21.0	14.1	—	—	126	38	—	114	Cádiz													
Córdoba.....	13.7	669	49	1.49	31.6	17.6	14.0	—	—	128	46	—	94	Córdoba													
Granada.....	12.5	644	51	1.26	33.8	16.7	17.1	—	—	109	46	—	80	Granada													
Huelva.....	10.1	355	35	.52	24.0	16.3	7.7	—	—	112	38	—	89	Huelva													
Jaén.....	13.5	674	50	1.20	35.2	19.0	16.2	—	—	134	53	—	75	Jaén													
Málaga.....	7.3	613	84	1.00	30.7	16.7	14.0	—	—	110	45	—	83	Málaga													
Sevilla.....	14.1	805	57	1.57	30.6	18.8	11.8	—	—	131	35	—	120	Sevilla													
2. Aragon														2. Aragon													
Huesca.....	15.1	243	16	-.39	23.2	16.2	7.0	—	—	111	30	—	135	Huesca													
Teruel.....	14.8	253	17	-.41	28.4	18.4	10.0	—	—	120	36	—	116	Teruel													
Zaragoza.....	17.4	536	31	.93	26.5	17.2	9.3	—	—	120	30	—	128	Zaragoza													
3. Asturias														3. Asturias													
Oviedo.....	10.9	792	73	.59	25.7	15.3	10.4	—	—	91	17	—	68	Oviedo													
4. Castilla la Nueva														4. Castilla la Nueva													
Ciudad Real.....	19.7	492	25	1.08	31.9	18.3	13.6	—	—	149	46	—	116	Ciudad Real													
Cuenca.....	17.2	310	18	.84	33.3	19.2	14.1	—	—	148	44	—	140	Cuenca													
Guadalajara.....	12.2	204	17	.11	27.3	17.7	9.6	—	—	131	28	—	109	Guadalajara													

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agriculture	Per Capita Productivity in Agric.	
SPAIN (12/31/30) (cont.)														SPAIN (12/31/30) (cont.)
4. Castilla la Nueva (cont.)														4. Castilla la Nueva (cont.)
Madrid.....	8.0	1,384	173	1.96	26.1	17.1	9.0	—	—	116	12	—	97	Madrid
Toledo.....	15.3	489	32	.40	30.6	17.2	13.4	—	—	128	42	—	108	Toledo
5. Castilla la Vieja.....	49.8	1,475	30	.65	31.1	18.0	13.1	2.18	1.57	136	16	55	100	5. Castilla la Vieja
Avila.....	8.0	221	28	.57	33.1	20.1	13.0	—	—	155	28	—	116	Avila
Burgos.....	14.2	355	25	.59	32.2	19.7	12.5	—	—	152	13	—	126	Burgos
Logroño.....	5.0	204	40	.68	28.9	17.3	11.6	—	—	131	20	—	125	Logroño
Santander.....	5.5	364	67	.92	29.1	15.6	13.5	—	—	107	11	—	38	Santander
Segovia.....	6.8	174	26	.62	33.4	18.2	15.2	—	—	144	14	—	196	Segovia
Soria.....	10.3	156	15	.26	30.4	18.0	12.4	—	—	128	17	—	110	Soria
6. Cataluña.....	32.3	2,791	86	1.04	19.2	14.6	4.6	1.11	.80	74	16	32	110	6. Cataluña
Barcelona.....	7.7	1,801	234	1.79	19.3	14.7	4.6	—	—	74	13	—	176	Barcelona
Gerona.....	5.9	326	56	-.05	18.9	14.9	4.0	—	—	70	20	—	91	Gerona
Lérida.....	12.2	314	26	-.28	19.9	14.2	5.7	—	—	81	21	—	136	Lérida
Tarragona.....	6.5	351	54	-.23	18.2	14.6	3.6	—	—	71	24	—	142	Tarragona
7. Extremadura.....	41.6	1,152	28	.86	31.0	18.9	12.1	2.07	1.49	156	46	-62	79	7. Extremadura
Badajoz.....	21.6	702	32	.71	29.0	18.0	11.0	—	—	150	48	—	88	Badajoz
Cáceres.....	20.0	450	22	1.10	34.1	20.4	13.7	—	—	164	44	—	85	Cáceres
8. Galicia.....	29.2	2,230	76	.81	27.7	16.7	11.0	1.72	1.24	104	37	62	—	8. Galicia
La Coruña.....	7.9	768	97	1.10	29.9	16.9	13.0	—	—	105	39	—	143	La Coruña
Lugo.....	9.9	469	47	.44	25.5	16.8	8.7	—	—	108	35	—	95	Lugo
Orense.....	7.0	426	61	.53	26.0	16.7	9.3	—	—	115	40	—	49	Orense
Pontevedra.....	4.4	568	129	.92	28.0	16.6	11.4	—	—	91	35	—	59	Pontevedra
9. León.....	54.5	1,570	29	.81	31.6	19.2	12.4	2.17	1.57	145	21	60	102	9. León
León.....	15.4	442	29	.90	32.1	18.0	14.1	—	—	130	21	—	113	León
Palencia.....	8.4	208	25	.62	33.8	21.1	12.7	—	—	165	18	—	132	Palencia
Salamanca.....	12.5	339	27	.97	31.1	18.4	12.7	—	—	139	19	—	124	Salamanca
Valladolid.....	7.6	302	40	.84	31.3	20.2	11.1	—	—	159	21	—	162	Valladolid
Zamora.....	10.6	280	26	.58	30.1	19.8	10.3	—	—	150	25	—	99	Zamora
10. Murcia.....	26.2	978	37	.81	30.9	17.6	13.3	1.96	1.41	119	50	51	93	10. Murcia
Albacete.....	14.9	333	22	1.25	33.7	18.9	14.8	—	—	133	52	—	107	Albacete
Murcia.....	11.3	645	57	.60	29.5	17.0	12.5	—	—	112	49	—	87	Murcia
11. Valencia.....	23.3	1,897	81	1.11	23.6	17.0	6.6	1.44	1.04	96	39	50	94	11. Valencia
Alicante.....	5.8	546	94	.85	24.9	16.9	8.0	—	—	96	43	—	101	Alicante
Castellón de la Plana.....	6.5	309	48	.09	21.0	17.2	3.8	—	—	93	45	—	92	Castellón de la Plana
Valencia.....	11.0	1,042	95	1.52	23.7	16.9	6.8	—	—	96	36	—	116	Valencia
12. Vascongadas y Navarra.....	17.6	1,238	70	.95	25.6	14.5	11.1	1.62	1.17	89	14	37	98	12. Vascongadas y Navarra
Álava.....	3.0	104	34	.67	27.0	14.9	12.1	—	—	105	10	—	111	Álava
Guipúzcoa.....	1.9	302	160	1.25	24.2	14.0	10.2	—	—	70	14	—	70	Guipúzcoa
Navarra.....	10.5	346	33	.57	26.2	15.5	10.7	—	—	101	17	—	136	Navarra
Vizcaya.....	2.2	485	224	1.11	25.7	14.2	11.5	—	—	88	14	—	103	Vizcaya
13. Baleares.....	5.0	366	73	.91	19.4	14.6	4.8	1.20	.87	69	38	45	96	13. Baleares
14. Canarias.....	7.3	555	76	1.98	29.8	14.4	15.4	1.88	1.35	142	51	35	109	14. Canarias
Las Palmas.....	4.1	251	62	2.14	31.2	15.9	15.3	—	—	174	50	—	137	Las Palmas
St. Cruz de Tenerife.....	3.2	304	95	1.85	28.6	13.1	15.5	—	—	114	52	—	127	St. Cruz de Tenerife
SWEDEN (12/31/30).....	410.2	6,142	15	.38	15.1	12.1	3.0	.92	.81	56	1	31	146	SWEDEN (12/31/30)
1. Stockholm (stad).....	.1	502	3,666	1.71 <sup>s</sup>	10.8 <sup>s</sup>	11.6 <sup>s</sup>	-.8 <sup>s</sup>	.46	.40	46	—	1 <sup>s</sup>	132	1. Stockholm (stad)
2. Stockholm (län).....	7.4	265	36	.84 <sup>s</sup>	13.4 <sup>s</sup>	11.3 <sup>s</sup>	2.1 <sup>s</sup>	.82	.72	55	—	25 <sup>s</sup>	—	2. Stockholm (län)
3. Uppsala.....	5.1	138	27	.05	14.6	12.8	1.8	.91	.80	60	1	36	168	3. Uppsala
4. Södermanland.....	6.2	189	30	.05	13.8	12.2	1.6	.90	.79	54	—	37	159	4. Södermanland
5. Östergötland.....	10.0	310	31	.18	14.6	12.1	2.5	.90	.79	46	1	34	163	5. Östergötland

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agriculture	Per Capita Productivity in Agric.	
SWEDEN (12/31/30) (cont.)														SWEDEN (12/31/30) (cont.)
6. Jönköping.....	10.6	232	22	.30	14.7	12.1	2.6	.92	.81	48	—	38	138	6. Jönköping
7. Kronoberg.....	8.9	156	17	-.23	15.6	13.1	2.5	1.10	.96	45	—	42	127	7. Kronoberg
8. Kalmar.....	11.0	231	21	-.06	15.6	13.3	2.3	1.05	.92	59	1	40	151	8. Kalmar
9. Gotland.....	3.1	57	18	.23	16.9	14.6	2.3	1.18	1.04	64	—	51	188	9. Gotland
10. Blekinge.....	2.9	145	50	-.07	16.7	12.7	4.0	1.13	.99	70	1	29	143	10. Blekinge
11. Kristianstad.....	6.2	246	40	.15	16.8	12.1	4.7	1.16	1.01	56	—	43	221	11. Kristianstad
12. Malmöhus.....	4.7	511	108	.42	14.6	11.2	3.4	.85	.75	59	—	24	291	12. Malmöhus
13. Halland.....	4.7	150	32	.10	15.4	12.2	3.2	1.05	.92	51	1	45	188	13. Halland
14. Göteborg o. Bohus.....	4.9	457	93	.68	14.5	11.4	3.1	.83	.72	46	—	14	128	14. Göteborg o. Bohus
15. Älvsborg.....	11.7	313	27	.46	14.7	12.4	2.3	.92	.81	46	1	39	128	15. Älvsborg
16. Skaraborg.....	8.1	242	30	-.09	14.7	13.5	1.2	.98	.86	46	1	50	158	16. Skaraborg
17. Värmland.....	17.5	270	15	-.02	14.9	13.0	1.9	.93	.82	46	—	37	94	17. Värmland
18. Örebro.....	8.4	219	26	.18	11.9	11.8	.1	.72	.64	51	1	30	168	18. Örebro
19. Västmanland.....	6.4	162	25	.00	13.9	11.7	2.2	.89	.78	43	1	33	155	19. Västmanland
20. Kopparberg.....	28.2	250	9	-.11	13.8	12.1	1.7	.88	.77	47	—	31	96	20. Kopparberg
21. Gävleborg.....	18.2	280	15	.11	15.7	12.0	3.7	.99	.87	63	—	25	106	21. Gävleborg
22. Västernorrland.....	24.1	278	12	.19	17.8	12.7	5.1	1.14	.99	74	1	29	99	22. Västernorrland
23. Jämtland.....	47.7	134	3	.19	16.9	12.1	4.8	1.10	.96	56	—	42	91	23. Jämtland
24. Västerbotten.....	55.4	204	4	.94	21.1	11.8	9.3	1.46	1.27	74	2	50	78	24. Västerbotten
25. Norrbotten.....	98.7	200	2	.83	24.3	12.6	11.7	1.67	1.46	81	2	37	68	25. Norrbotten
SWITZERLAND (12/1/30) <sup>11</sup>														SWITZERLAND (12/1/30) <sup>11</sup>
1. Zürich, etc.....	40.0	4,066	102	.44	17.0	11.9	5.1	.97	.86	50	*0-5	22	194	1. Zürich, etc.
2. Bern.....	2.8	805	286	.83	15.4	11.1	4.3	.80	.71	41	—	15	198	2. Bern
3. Luzern, etc.....	6.8	689	102	.35	17.2	11.2	6.0	1.00	.89	41	—	25	213	3. Luzern, etc.
4. Fribourg.....	4.3	344	80	.69	21.8	12.2	9.6	1.34	1.18	54	—	32	202	4. Fribourg
5. Solothurn, etc.....	1.6	143	89	.28	22.5	13.1	9.4	1.54	1.36	74	—	44	191	5. Solothurn, etc.
6. Appenzell A.-Rh., etc.....	2.6	651	246	.70	17.6	10.8	6.8	.97	.85	43	—	15	191	6. Appenzell A.-Rh., etc.
7. Graubünden.....	3.0	385	126	-.26	16.8	12.4	4.4	1.02	.90	50	—	21	208	7. Graubünden
8. Ticino.....	7.1	126	18	.31	18.8	12.4	6.4	1.10	.98	54	—	33	147	8. Ticino
9. Vaud, etc.....	2.7	159	58	.37	15.2	14.1	1.1	.89	.79	83	—	25	110	9. Vaud, etc.
10. Valais.....	3.8	628	166	.11	12.8	12.5	.3	.70	.62	50	—	17	242	10. Valais
5.2	136	26	.70	25.0	14.7	10.3	1.79	1.58	84	—	49	124		
UNITED KINGDOM														UNITED KINGDOM
England and Wales (4/27/31).....	151.1	39,952	264	.49	16.1	11.9	4.2	.93 <sup>12</sup>	.81 <sup>12</sup>	63	*0-5	* 5	319	England and Wales (4/27/31)
1. South East.....	27.4	13,478	493	.97	15.3	11.3	4.0	.85	.73	53	—	* 4	232	1. South East
Bedfordshire.....	1.2	220	180	1.40	14.3	11.4	2.9	.86	.77	49	—	—	—	Bedfordshire
Berkshire.....	1.9	311	166	.63	15.0	11.6	3.4	.92	.83	44	—	—	—	Berkshire
Buckinghamshire.....	1.9	272	140	1.59	14.9	10.8	4.1	.90	.80	42	—	—	—	Buckinghamshire
Essex.....	4.0	1,755	443	1.56	16.1	10.3	5.8	.92	.81	52	—	—	—	Essex
Hertfordshire.....	1.6	401	245	2.21	14.9	10.2	4.7	.83	.75	44	—	—	—	Hertfordshire
Kent.....	3.9	1,219	309	1.25	15.1	11.3	3.8	.92	.83	46	—	—	—	Kent
London.....	.3	4,397	14,512	-.58	15.4	12.0	3.4	.78	.68	62	—	—	—	London
Middlesex.....	.6	1,639	2,722	2.91	15.7	9.6	6.1	.81	.72	49	—	—	—	Middlesex
Oxfordshire.....	1.9	210	108	1.12	15.2	11.7	3.5	.94	.84	38	—	—	—	Oxfordshire
Southampton.....	3.9	1,014	261	.99	16.3	11.9	4.4	.98	.86	49	—	—	—	Southampton
Surrey.....	1.9	1,181	632	2.51	14.3	10.1	4.2	.77	.70	45	—	—	—	Surrey
Sussex, East.....	2.1	547	255	.37	12.7	13.0	-.3	.77	.70	46	—	—	—	Sussex, East
Sussex, West.....	1.6	223	137	1.77	14.2	12.5	1.7	—	—	41	—	—	—	Sussex, West
Wight, Isle of.....	.4	88	232	-.58	12.5	12.8	-.3	— <sup>13</sup>	— <sup>13</sup>	30	—	—	—	Wight, Isle of
2. North I.....	7.8	2,243	286	-.06	19.5	12.4	7.1	1.20	1.04	82	—	* 2	468	2. North I
Durham.....	2.6	1,486	566	-.16	20.5	12.4	8.1	1.28	1.05	84	—	—	—	Durham
Northumberland.....	5.2	757	145	.14	17.6	12.2	5.4	1.03	.88	75	—	—	—	Northumberland

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APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agriculture	Per Capita Productivity in Agric.	
UNITED KINGDOM (cont.) England and Wales (4/27/31) (cont.)													UNITED KINGDOM (cont.) England and Wales (4/27/31) (cont.)	
3. North II.....	14.5	1,281	88	.19	18.0	12.9	5.1	1.11	.95	70	—	* 12	359	3. North II
Cumberland.....	3.9	263	67	— .40	17.5	12.9	4.6	1.07	.92	67	—	—	—	Cumberland
Westmorland.....	2.0	65	32	— .21	14.7	13.1	1.6	.85	.75	66	—	—	—	Westmorland
Yorkshire, E. Riding.....	3.0	483	159	.52	18.3	12.7	5.6	1.08	.92	70	—	—	—	Yorkshire, E. Riding
Yorkshire, N. Riding.....	5.5	469	85	.25	18.3	13.1	5.2	1.14	.97	73	—	—	—	Yorkshire, N. Riding
4. North III.....	7.2	3,437	477	.33	15.8	12.3	3.5	.91	.79	70	—	* 2	396	4. North III
Yorkshire, W. Riding.....	7.2	3,352	466	.31	15.8	12.3	3.5	.90	.77	70	—	—	—	Yorkshire, W. Riding
York, C. B.....	.02	85	5,654	.91	16.1	11.8	4.3	—	—	61	—	—	—	York, C. B.
5. North IV.....	7.5	6,127	817	.20	15.9	12.9	3.0	.90	.78	76	—	* 2	384	5. North IV
Cheshire.....	2.6	1,088	412	.69	15.0	11.7	3.3	.84	.73	62	—	—	—	Cheshire
Lancashire.....	4.8	5,039	1,038	.10	16.1	13.1	3.0	.90	.76	79	—	—	—	Lancashire
6. Midland I.....	16.2	4,528	279	.63	17.0	11.6	5.4	.99	.86	63	—	* 5	359	6. Midland I
Gloucestershire.....	3.2	786	241	.41	15.1	12.1	3.0	.90	.80	53	—	—	—	Gloucestershire
Herefordshire.....	2.2	112	51	— .24	15.5	13.8	1.7	1.03	.91	55	—	—	—	Herefordshire
Shropshire.....	3.5	244	70	— .04	16.5	12.4	4.1	1.03	.92	54	—	—	—	Shropshire
Staffordshire.....	3.0	1,431	479	.53	18.6	11.6	7.0	1.07	.92	72	—	—	—	Staffordshire
Warwickshire.....	2.5	1,535	607	1.00	16.7	11.0	5.7	.92	.81	62	—	—	—	Warwickshire
Worcestershire.....	1.8	420	232	.72	16.6	12.2	4.4	.97	.84	59	—	—	—	Worcestershire
7. Midland II.....	9.5	2,373	249	.66	16.4	11.2	5.2	.94	.82	64	—	* 5	370	7. Midland II
Derbyshire.....	2.6	757	289	.47	16.8	10.8	6.0	1.00	.86	65	—	—	—	Derbyshire
Leicestershire.....	2.2	542	251	.79	16.1	11.2	4.9	.91	.79	59	—	—	—	Leicestershire
Northamptonshire.....	2.4	309	131	.29	13.5	11.4	2.1	.79	.70	50	—	—	—	Northamptonshire
Nottinghamshire.....	2.2	713	326	.21	17.3	11.7	5.6	1.00	.86	71	—	—	—	Nottinghamshire
Peterborough, Soke of.....	.2	52	240	1.02	15.5	11.6	3.9	— <sup>13</sup>	— <sup>13</sup>	70	—	—	—	Peterborough, Soke of
8. East.....	19.6	1,822	93	.21	16.1	12.0	4.1	1.04	.90	53	—	* 23	240	8. East
Cambridgeshire.....	1.3	140	110	.84	13.3	11.5	1.8	.93	.84	44	—	—	—	Cambridgeshire
Ely, Isle of.....	1.0	78	81	.35	18.4	11.0	7.4	—	—	55	—	—	—	Ely, Isle of
Huntingdonshire.....	.9	56	59	.19	16.3	12.2	4.1	1.09	.98	49	—	—	—	Huntingdonshire
Lincolnshire.....	—	—	—	—	—	—	—	1.10	.96	—	—	—	—	Lincolnshire
parts of Holland.....	1.1	92	85	.64	19.4	11.4	8.0	—	—	63	—	—	—	parts of Holland
parts of Kesteven.....	1.9	110	59	.35	16.5	12.3	4.2	—	—	61	—	—	—	parts of Kesteven
parts of Lindsey.....	3.9	422	107	.27	16.8	12.0	4.8	—	—	59	—	—	—	parts of Lindsey
Norfolk.....	5.3	505	95	.00	15.5	12.1	3.4	1.00	.90	51	—	—	—	Norfolk
Rutlandshire.....	.4	17	44	— .17	14.9	12.1	2.8	1.04	.92	36	—	—	—	Rutlandshire
Suffolk, East.....	2.2	295	131	.19	16.0	11.7	4.3	1.03	.92	50	—	—	—	Suffolk, East
Suffolk, West.....	1.6	105	67	— .32	14.0	12.9	1.1	—	—	43	—	—	—	Suffolk, West
9. South West.....	20.5	2,059	101	.21	14.5	13.0	1.5	.89	.77	52	—	* 15	333	9. South West
Cornwall.....	3.5	318	90	— .20	14.6	13.8	.8	.88	.78	53	—	—	—	Cornwall
Devonshire.....	6.8	733	108	.26	14.5	13.3	1.2	.85	.75	55	—	—	—	Devonshire
Dorsetshire.....	2.5	239	95	.68	15.0	12.8	2.2	.94	.84	48	—	—	—	Dorsetshire
Somersetshire.....	4.2	475	113	.15	13.9	12.6	1.3	.84	.76	48	—	—	—	Somersetshire
Wiltshire.....	3.5	303	87	.28	15.3	11.9	3.4	.99	.89	51	—	—	—	Wiltshire
10. Wales I.....	7.8	1,898	243	— .49	17.0	11.8	5.2	1.05	.91	72	—	* 3	452	10. Wales I
Brecknockshire.....	1.9	58	30	— .84	15.9	13.0	2.9	1.03	.87	69	—	—	—	Brecknockshire
Carmarthenshire.....	2.4	179	75	— .08	15.0	12.4	2.6	.92	.78	76	—	—	—	Carmarthenshire
Glamorganshire.....	2.1	1,226	582	— .48	17.0	11.8	5.2	1.03	.87	74	—	—	—	Glamorganshire
Monmouthshire.....	1.4	435	307	— .65	17.9	11.4	6.5	1.14	.96	68	—	—	—	Monmouthshire
11. Wales II.....	13.0	695	54	— .29	15.3	13.8	1.5	.97	.84	64	—	* 20	368	11. Wales II
Anglesey.....	.7	49	69	— .62	15.5	15.2	.3	1.04	.89	73	—	—	—	Anglesey
Caernarvonshire.....	1.5	121	82	— .46	14.0	15.1	— 1.1	.86	.75	66	—	—	—	Caernarvonshire
Cardiganshire.....	1.8	55	31	— .91	12.7	16.4	— 3.7	.76	.66	71	—	—	—	Cardiganshire

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illiterate at age 10+	% Dependent on Agriculture	Per Capita Productivity in Agric.	
<b>UNITED KINGDOM (cont.)</b>														<b>UNITED KINGDOM (cont.)</b>
England and Wales (4/27/31) (cont.)														England and Wales (4/27/31) (cont.)
11. Wales II (cont.)														11. Wales II (cont.)
Denbighshire.....	1.7	158	91	-.03	15.6	12.7	2.9	.99	.84	71	—	—	—	Denbighshire
Flintshire.....	.7	113	170	.74	16.5	11.7	4.8	1.00	.88	52	—	—	—	Flintshire
Merionethshire.....	1.7	43	25	-.71	15.3	15.5	-.2	.96	.83	63	—	—	—	Merionethshire
Montgomeryshire.....	2.1	48	23	-.78	16.0	13.6	2.4	1.09	.96	69	—	—	—	Montgomeryshire
Pembrokeshire.....	1.6	87	55	-.59	16.0	13.8	2.2	1.02	.87	61	—	—	—	Pembrokeshire
Radnorshire.....	1.2	21	17	-1.09	15.8	13.3	2.5	1.03	.91	64	—	—	—	Radnorshire
Northern Ireland (2/28/37).....	13.5	1,280	95	.17	20.7	14.1	6.6	1.26	1.05	71	*0-5	* 30	112	Northern Ireland (2/28/37)
Scotland (4/27/31).....	77.2	4,843	63	.13	19.3	13.3	6.0	1.16 <sup>14</sup>	.97 <sup>14</sup>	83	*0-5	* 8	317	Scotland (4/27/31)
1. Northern.....	55.3	1,155	21	-.27	17.6	14.2	3.4	—	—	77	—	* 21	240	1. Northern
2. East Central.....	4.6	1,130	247	.29	18.2	12.5	5.7	—	—	72	—	* 4	308	2. East Central
3. West Central.....	6.5	2,308	357	.29	21.0	13.2	7.8	—	—	91	—	* 2	466	3. West Central
4. Southern.....	10.9	251	23	-.10	16.8	13.9	2.9	—	—	66	—	* 28	405	4. Southern
<b>YUGOSLAVIA (4/1/31)</b>	247.5	13,934	56	1.43	34.6	19.4	15.2	2.09	1.45	159	45	76	38	<b>YUGOSLAVIA (4/1/31)</b>
1. Drav.....	15.8	1,144	72	.68	28.1	16.3	11.8	1.66	1.15	130	7	60	34	1. Drav
2. Drin.....	27.8	1,535	55	2.30	40.3	19.6	20.7	2.55	1.77	152	62	82	35	2. Drin
3. Dunav.....	31.2	2,387	76	.84 <sup>3</sup>	29.8 <sup>3</sup>	19.1 <sup>3</sup>	10.7 <sup>3</sup>	1.74	1.21	176	29 <sup>3</sup>	74 <sup>3</sup>	69	3. Dunav
4. Morav.....	25.5	1,436	56	1.71	35.4	17.8	17.6	2.15	1.49	113	62	86	33	4. Morav
5. Primor.....	19.6	902	46	1.07	37.0	20.2	16.8	2.25	1.56	165	58	83	22	5. Primor
6. Sava.....	40.5	2,704	67	1.02	31.9	20.3	11.6	1.84	1.28	206	28	75	39	6. Sava
7. Vardar.....	36.7	1,574	43	1.65	40.4	23.2	17.2	2.73	1.90	161	71	78	28	7. Vardar
8. Vrba.....	18.9	1,037	55	1.90	42.2	20.5	21.7	2.66	1.85	142	73	88	31	8. Vrba
9. Zetska.....	31.0	926	30	1.57	35.0	17.5	17.5	2.23	1.55	132	66	82	24	9. Zetska
10. Beograd.....	.4	289	764	5.50 <sup>3</sup>	19.7 <sup>3</sup>	11.8 <sup>3</sup>	7.9 <sup>3</sup>	.95	.66	128	11 <sup>3</sup>	3 <sup>3</sup>	109	10. Beograd
<b>U. S. S. R. (12/17/26)</b>	21,176.2	147,028	7	1.22 <sup>15</sup>	45.0 <sup>15</sup>	22.0 <sup>15</sup>	23.0 <sup>15</sup>	2.64 <sup>15</sup>	1.72 <sup>15</sup>	181 <sup>15</sup>	50 <sup>15</sup>	78 <sup>15</sup>	39	<b>U. S. S. R. (12/17/26)</b>
Northeastern Region.....	1,102.3	2,368	2	.76	46.1	26.6	19.5	2.95	1.76	248	40	86	38	Northeastern Region
1. Arkhangel'sk Gub.....	450.8	429	1	—	—	—	—	2.75	1.66	—	30	73	—	1. Arkhangel'sk Gub.
2. Vologda Gub.....	112.4	1,054	9	—	—	—	—	2.71	1.62	—	38	87	—	2. Vologda Gub.
3. Northern Dvina Gub.....	105.0	678	6	—	—	—	—	3.36	1.99	—	47	91	—	3. Northern Dvina Gub.
4. Komi Autonomous Obl.....	434.2	207	—	—	—	—	—	3.35	1.99	—	50	92	—	4. Komi Autonomous Obl.
Leningrad-Karelia Region.....	506.9	6,660	13	2.85	36.6	19.4	17.2	2.15	1.46	178	28	61	39	Leningrad-Karelia Region
5. Karelian A.S.S.R.....	146.0	270	2	7.89 <sup>16</sup>	—	—	—	2.51	1.64	—	38	68	—	5. Karelian A.S.S.R.
6. Leningrad Gub.....	66.2	2,792	42	—	—	—	—	1.60	1.11	—	15	60	—	6. Leningrad Gub.
7. Murmansk Gub.....	128.5	23	—	—	—	—	—	3.05	1.62	—	25	47	—	7. Murmansk Gub.
8. Novgorod Gub.....	51.6	1,051	20	—	—	—	—	2.68	1.74	—	34	78	—	8. Novgorod Gub.
9. Pskov Gub.....	51.7	1,788	35	—	—	—	—	2.63	1.79	—	42	89	—	9. Pskov Gub.
10. Cherepovets Gub.....	62.8	736	12	—	—	—	—	2.60	1.76	—	34	87	—	10. Cherepovets Gub.
Western Region.....	98.6	4,299	44	-.51	44.4	20.0	24.4	2.90	1.94	164	47	86	40	Western Region
11. Bryansk Gub.....	41.5	2,006	48	—	—	—	—	3.11	2.09	—	50	82	—	11. Bryansk Gub.
12. Smolensk Gub.....	57.1	2,293	40	—	—	—	—	2.71	1.81	—	44	88	—	12. Smolensk Gub.
Central Industrial Region.....	422.1	19,314	46	2.29	41.2	20.1	21.1	2.53	1.72	185	31	67	37	Central Industrial Region
13. Vladimir Gub.....	33.0	1,321	40	—	—	—	—	2.81	1.91	—	29	65	—	13. Vladimir Gub.
14. Ivanovo-Voznesensk Gub.....	33.5	1,196	35	—	—	—	—	2.43	1.66	—	30	62	—	14. Ivanovo-Voznesensk Gub.
15. Kaluga Gub.....	25.9	1,152	44	—	—	—	—	2.86	1.95	—	40	83	—	15. Kaluga Gub.
16. Kostroma Gub.....	33.6	812	24	—	—	—	—	2.44	1.66	—	28	77	—	16. Kostroma Gub.
17. Moscow Gub.....	44.6	4,571	103	—	—	—	—	1.95	1.38	—	18	31	—	17. Moscow Gub.
18. Nizhniy Novgorod Gub.....	81.4	2,743	34	—	—	—	—	2.74	1.87	—	44	78	—	18. Nizhniy Novgorod Gub.
19. Tver' Gub.....	63.4	2,242	35	—	—	—	—	2.56	1.74	—	32	81	—	19. Tver' Gub.
20. Yaroslavl' Gub.....	34.8	1,343	39	—	—	—	—	2.40	1.63	—	22	73	—	20. Yaroslavl' Gub.

APPENDIX II (Cont.)

Country, District and Date of Census	Area, Population and Density			Average Annual Interwar % Growth	Average Vital Rates, 1930-31			Reproduction Rates, ca. 1930		Socio-economic Indices, ca. 1930				Country, District and Date of Census
	Area (000 km <sup>2</sup> )	Population (000)	Density per km <sup>2</sup>		Birth	Death	Natural Increase	Gross	Net	Infant Mortality 1930-1931	% Illit-erate at age 10+	% De-pendent on Agri-culture	Per Cap-ita Pro-ductivity in Agric.	
U. S. S. R. (12/17/26) (cont.) Central Industrial Region (cont.)														U. S. S. R. (12/17/26) (cont.) Central Industrial Region (cont.)
21. Ryazan' Gub.	46.3	2,429	52	—	—	—	—	3.05	2.08	—	44	88	—	21. Ryazan' Gub.
22. Tula Gub.	25.5	1,505	59	—	—	—	—	2.95	2.01	—	35	83	—	22. Tula Gub.
Central Black Soil Region.	188.2	10,826	58	-.37	44.7	20.5	24.2	2.86	1.83	182	50	89	35	Central Black Soil Region
23. Voronezh Gub.	67.0	3,308	49	—	—	—	—	2.83	1.81	—	52	90	—	23. Voronezh Gub.
24. Kursk Gub.	43.6	2,906	67	—	—	—	—	2.88	1.84	—	48	89	—	24. Kursk Gub.
25. Orël Gub.	30.8	1,884	61	—	—	—	—	3.08	1.98	—	46	89	—	25. Orël Gub.
26. Tambov Gub.	46.7	2,727	58	—	—	—	—	2.73	1.75	—	54	87	—	26. Tambov Gub.
Vyatka Region.	161.2	3,463	22	—	52.6	32.4	20.2	3.18	1.66	274	48	91	37	Vyatka Region.
27. Votyak Autonomous Obl.	30.4	756	25	—	—	—	—	3.16	1.66	—	58	87	—	27. Votyak Autonomous Obl.
28. Vyatka Gub.	108.4	2,225	20	—	—	—	—	3.22	1.67	—	45	91	—	28. Vyatka Gub.
29. Mari Autonomous Obl.	22.4	482	22	—	—	—	—	3.12	1.61	—	52	94	—	29. Mari Autonomous Obl.
Ural Oblast'.	1,756.1	6,787	4	2.22	54.6	30.3	24.3	3.05	1.65	296	50	75	51	Ural Oblast'
30. Cis-Ural Subregion.	109.4	1,888	17	—	—	—	—	2.77	1.49	—	48	79	—	30. Cis-Ural Subregion
31. Mining-Industrial Subregion.	227.5	1,501	7	—	—	—	—	3.00	1.67	—	38	44	—	31. Mining-Industrial Subregion
32. Trans-Ural Subregion.	260.3	3,206	12	—	—	—	—	3.31	1.76	—	55	86	—	32. Trans-Ural Subregion
33. Tobol'sk Subregion.	1,158.9	192	—	—	—	—	—	3.44	1.82	—	65	85	—	33. Tobol'sk Subregion
34. Bashkir A.S.S.R.	151.8	2,666	18	1.69	46.6	24.0	22.6	3.39	1.81	163	59	88	42	34. Bashkir A.S.S.R.
Central Volga Region.	339.3	10,268	30	-.53	45.9	23.5	22.4	2.95	1.73	204	52	87	37	Central Volga Region
35. Orenburg Gub.	68.0	773	11	—	—	—	—	2.56	1.49	—	45	76	—	35. Orenburg Gub.
36. Penza Gub.	46.3	2,209	48	—	—	—	—	3.24	1.87	—	60	90	—	36. Penza Gub.
37. Samara Gub.	105.5	2,413	23	—	—	—	—	2.61	1.51	—	52	84	—	37. Samara Gub.
38. Tatar A.S.S.R.	67.1	2,594	39	.98	—	—	—	3.17	1.84	—	52	88	—	38. Tatar A.S.S.R.
39. Ul'yanovsk Gub.	34.1	1,384	41	—	—	—	—	3.10	1.80	—	49	86	—	39. Ul'yanovsk Gub.
40. Chuvash A.S.S.R.	18.3	894	49	—	—	—	—	3.00	1.74	—	53	94	—	40. Chuvash A.S.S.R.
Lower Volga Region.	323.6	5,530	17	.31	42.7	19.0	23.7	2.60	1.74	165	46	78	39	Lower Volga Region
41. Astrakhan' Gub.	32.4	510	16	—	—	—	—	2.28	1.50	—	46	54	—	41. Astrakhan' Gub.
42. Kalmyk Autonomous Obl.	73.8	142	2	—	—	—	—	3.64	1.88	—	78	91	—	42. Kalmyk Autonomous Obl.
43. Volga German A.S.S.R.	26.8	572	21	—	—	—	—	2.79	1.81	—	28	78	—	43. Volga German A.S.S.R.
44. Saratov Gub.	91.2	2,897	32	—	—	—	—	2.79	1.81	—	48	82	—	44. Saratov Gub.
45. Stalingrad Gub.	99.4	1,408	14	—	—	—	—	2.21	1.44	—	45	75	—	45. Stalingrad Gub.
46. Crimean A.S.S.R.	25.9	714	28	3.78	36.6	14.4	22.2	2.19	1.45	118	27	52	58	46. Crimean A.S.S.R.
North Caucasian Kray.	293.6	8,364	28	1.15	42.8	17.5	25.3	2.39	1.55	158	45	74	48	North Caucasian Kray
47. Azov Subregion.	30.8	1,401	45	—	—	—	—	1.98	1.30	—	31	57	—	47. Azov Subregion
48. Donets-Stavropol' Subregion.	138.0	2,793	20	—	—	—	—	2.46	1.60	—	44	80	—	48. Donets-Stavropol' Subregion
49. Kuban'-Black Sea Subregion.	84.5	3,152	37	—	—	—	—	2.23	1.37	—	44	73	—	49. Kuban'-Black Sea Subregion
50. Mountain Subregion.	40.2	1,018	25	—	—	—	—	3.24	2.10	—	72	77	—	50. Mountain Subregion
51. Dagestan A.S.S.R.	54.2	788	14	2.49	44.0	22.0	20.0	3.93	2.03	—	83	80	26	51. Dagestan A.S.S.R.
52. Belorussian S.S.R.	126.8	4,984	39	.92	39.7	14.4	25.3	2.57	1.94	100	47	82	41	52. Belorussian S.S.R.
Ukrainian S.S.R.	451.6	29,018	64	.53	41.2	18.0	23.2	2.49	1.70	144	42	78	36	Ukrainian S.S.R.
53. Forest Subregion.	54.4	2,958	54	—	41.3	19.1	22.2	2.74	1.86	146	46	84	—	53. Forest Subregion
54. Dnepr Prairie Right Bank.	102.8	8,998	88	—	39.1	19.0	20.1	2.46	1.68	153	47	81	—	54. Dnepr Prairie Right Bank
55. Dnepr Prairie Left Bank.	95.0	7,067	74	—	39.5	18.1	21.4	2.48	1.69	144	43	81	—	55. Dnepr Prairie Left Bank
56. Steppe Subregion.	121.4	5,568	46	—	43.7	16.8	26.9	2.49	1.70	138	39	78	—	56. Steppe Subregion
57. Dnepr Industrial Subregion.	47.0	2,391	51	—	45.3	16.2	29.1	2.41	1.65	130	37	75	—	57. Dnepr Industrial Subregion
58. Mining-Industrial Subregion.	31.2	2,036	65	—	44.9	16.5	28.4	2.29	1.61	146	33	76	—	58. Mining-Industrial Subregion
Transcaucasian S.F.S.R.	185.2	5,862	32	2.58	—	—	—	—	—	—	63	72	24	Transcaucasian S.F.S.R.
59. Azerbaydzhan S.S.R.	86.0	2,315	27	2.71	43	22	21	3.62	2.36	—	75	65	—	59. Azerbaydzhan S.S.R.
60. Armenian S.S.R.	30.0	880	29	3.11	54.9	17.1	37.8	3.89	2.53	112	65	81	—	60. Armenian S.S.R.
61. Georgian S.S.R.	69.2	2,666	38	2.32	43	20	23	3.06	1.99	—	52	75	—	61. Georgian S.S.R.

## APPENDIX II (Cont.)

### Notes to Table

\*Estimated. See general comments for explanation of procedures employed.

<sup>1</sup>Little demographic information on Albania was available aside from figures on area and total population. For the text maps it was assumed that Albania resembled the neighboring Yugoslav *banovina* of Zetska and Vardar, the latter especially because its statistics appear to be rather more complete than those of Zetska.

<sup>2</sup>The figure for Austria as a whole includes 4,726 persons without fixed residence and not included in the figures for the divisions.

<sup>3</sup>The statistics of the following cities were averaged with those of surrounding and adjacent districts (shown in parentheses) for the mapping of growth rates, vital rates, illiteracy, and percentage in agriculture:

- Vienna (Niederösterreich)
- Paris (Seine and Seine-et-Oise)
- Berlin (Potsdam)
- Hamburg (Schleswig-Holstein)
- Bremen (Stade)
- Budapest (Pest-Pilis-Solt-Kiskun)
- Oslo (Akershus)
- Warsaw (Warsaw province)
- Stockholm (Stockholm *län*)
- Belgrade (Dunav)

• <sup>4</sup>The Bulgarian figures relate to the broader definition of the agricultural population including forestry, fishing, and hunting. These occupations employed only 20,773 or .4 per cent of those gainfully occupied in the country as a whole.

<sup>5</sup>For Denmark and component parts, the average infant mortality for 1931-1932.

<sup>6</sup>"Present" population for Finland and component parts, excluding all persons absent from their communes of legal residence, whether or not in the country at the time of the census. This figure (and not the "actual" population of 3,463 thousand) is commonly used for census analysis, though the latter was employed for the computation of the vital rates listed above. Growth rates were computed from the legal population.

<sup>7</sup>The population and the area for Lithuania are official figures for 1930, including Memel. The latter is not included in the vital statistics. The figure for illiteracy is drawn from the census of 1923.

<sup>8</sup>Official figures on the per cent of the population in agriculture were not available by provinces. Provincial figures were estimated from the number of employed persons engaged in industry and commerce as given in Volume X of the Rumanian census of 1930. It was assumed that the relationship between the number of persons gainfully occupied

in industry and commerce (5.25 per cent) and persons not dependent on agriculture (27.6 per cent) held for each province. The resultant figures, representing the estimated proportions *not* dependent on agriculture, were subtracted from 100 to obtain estimated proportions dependent on agriculture.

<sup>9</sup>Combined figure for the four provinces of the Old Kingdom.

<sup>10</sup>Combined figure for Transylvania, including the three provinces into which it was divided administratively.

<sup>11</sup>The Swiss cantons are grouped as follows:

1. Zürich, Schaffhausen, and Thurgau
2. Bern
3. Luzern, Uri, Schwyz, Obwalden, Nidwalden, and Zug
4. Fribourg
5. Solothurn, Basel-Stadt, Basel-Land, and Aargau
6. Appenzell A.-Rh., Appenzell I.-Rh., St. Gallen, and Glarus
7. Graubünden
8. Ticino
9. Vaud, Neuchâtel, and Genève
10. Valais

<sup>12</sup>As indicated above (see General Note), the reproduction rates for the counties of England and Wales are those given by D. V. Glass. The regional rates were independently computed by slightly different methods, especially as regards the net reproduction figures. Regional net rates were computed using the national life table throughout, whereas Glass more accurately employed special life tables prepared for each county. The differences in results are generally small.

<sup>13</sup>The Isle of Wight is included in the figure for Southampton, the Soke of Peterborough in that for Northamptonshire.

<sup>14</sup>Reproduction rates for Scotland were computed by counties and are so mapped in Figures 17 and 18.

<sup>15</sup>Data for the U.S.S.R. and its divisions were largely drawn from Frank Lorimer, *The Population of the Soviet Union: History and Prospects* (Geneva: League of Nations, 1946). Owing to the numerous internal boundary changes made between the censuses of 1926 and 1939, which is the interval used for computing average annual per cent growth, the growth rates relate to specially derived areas, delineated by Lorimer for purposes of intercensal comparison. Lorimer's "Population Study Areas" (cf. his Appendix VII) only very roughly correspond to the 1926 divisions listed above. Vital rates for the U.S.S.R. (including infant mortality rates) are the averages for 1926 and 1927, reasonably complete vital statistics for the Soviet Union being unobtainable for later periods.

<sup>16</sup>The growth figure listed for the Karelian A.S.S.R. includes Murmansk, and both are excluded from the Leningrad regional total.



## APPENDIX III

### STATISTICS OF MIGRATION

The following tables on migration present the basic information charted and mapped in Chapters V-VIII:

Table 1. Average Annual Overseas Emigration from Europe, 1846-1939 (Figures 19-20, 22-23).

Table 2. Overseas Immigration of Aliens into the Chief Countries of Destination, 1900-1939 (Figure 24).

Table 3. European-Born Living Overseas According to Censuses in Overseas Countries in the Interwar Period (Figure 25).

Table 4. Cross-Classification of Place of Birth (or Political Nationality) and Residence in Interwar Europe (Figure 26).

Table 5. Balances of International Migration in Europe, About 1920-1930 (Figure 29).

Table 6. Balances of International Migration in Europe, About 1930-1939 (Figure 29).

Table 7. Internal Migration as Measured by Place-of-Birth Statistics (Figure 31).

Table 8. Total Migration Balances and Migration as a Factor in Population Change (Figures 36-38).

Space limitations precluded presentation of the full detail of origins and destinations in international migration according to direct migration statistics mapped in Figure 28. Similarly the materials on internal migration given in Table 7 relate only to total internal migration for each district and do not give the full cross-classifications of areas of origin against areas of destination utilized in the preparation of Figure 31.

Unless otherwise noted the data included in the tables were drawn from the national statistical publications listed in Appendix IV. It may be noted that all migration statistics are subject to considerable margins of error, and that the data here presented should be evaluated in accordance with cautions regarding methodology discussed in the chapters relating to migration.

TABLE 1

Average Annual Overseas Emigration from Europe, 1846-1939 (in thousands)

Date	Total European Overseas Emigration	REGIONS OF "OLD MIGRATION"					REGIONS OF "NEW MIGRATION"				
		Total	British Isles <sup>1</sup>	Germany	Norway Sweden Denmark	France Switzerland Low Countries	Total	Italy	Austria <sup>2</sup> Hungary Czechoslovakia	Russia <sup>3</sup> Poland Lithuania Finland Estonia	Spain Portugal
1846-1850	256.6	254.3	199.1	36.5	4.3	14.4	2.3	.2	1.6	.1	.4
1851-1855	342.3	331.3	231.7	74.9	6.9	17.8	11.0	.7	4.0	.2	6.1
1856-1860	197.1	184.7	123.5	49.4	4.5	7.3	12.5	4.2	2.2	.2	5.9
1861-1865	219.3	202.9	143.6	43.5	9.7	6.1	16.4	8.0	2.2	.3	5.9
1866-1870	345.9	308.4	170.8	83.4	39.3	14.9	37.4	18.7	5.7	.6	12.4
1871-1875	370.7	310.1	193.9	79.0	22.1	15.1	60.6	23.3	10.5	5.0	21.8
1876-1880	258.0	192.8	114.9	46.2	23.2	8.5	65.2	28.9	11.8	7.2	17.3
1881-1885	661.3	480.7	228.0	171.5	58.4	22.8	180.6	64.0	34.6	17.1	64.5
1886-1890	737.7	407.2	214.8	97.0	60.8	34.6	330.5	134.2	52.5	45.5	96.7
1891-1895	674.8	273.9	128.4	80.5	48.1	16.9	400.9	150.2	67.6	72.2	108.9
1896-1900	543.2	137.5	81.0	24.9	22.1	9.5	405.7	165.7	77.2	55.8	102.4
1901-1905	1,038.9	253.0	156.0	28.4	53.9	14.7	785.9	320.6	203.0	143.4	97.6
1906-1910	1,436.7	322.3	234.6	26.4	43.7	17.6	1,114.3	402.4	265.4	211.6	185.4
1911-1915	1,365.3	325.6	265.7	15.8	28.6	15.5	1,039.5	312.2	243.6	216.8	220.2
1916-1920	405.5	123.9	101.1	2.4	11.2	9.2	281.8	126.6	11.5	7.8	121.3
1921-1925	629.5	295.2	197.7	58.9	26.4	12.2	334.3	130.9	23.8	56.8	96.3
1926-1930	555.6	253.5	162.3	54.0	23.9	13.3	302.2	89.4	23.0	75.5	74.7
1931-1935	130.8	50.0	30.4	12.7	3.1	3.8	81.0	28.2	5.1	20.9	19.6
1936-1939 <sup>4</sup>	147.4	60.4	33.3 <sup>5</sup>	17.3 <sup>6</sup>	4.2	5.6 <sup>7</sup>	87.2	23.6	6.3	20.8	27.4 <sup>8</sup>

<sup>1</sup>For the years 1880-1915 the data given in Ferenczi, pp. 627-629, (relating to total passengers leaving the British Isles for overseas destinations) were adjusted to obtain an estimated number of true emigrants. See Chapter V, Footnote 8, for method of computation.

<sup>2</sup>Austro-Hungarian Empire to 1920; after 1920 the data include Austria, Hungary, and Czechoslovakia. For Austria, the annual average of 1936-1938 was used for the final period; no figure for Czechoslovakia in 1921 is available; the 1922-1925 average was therefore used for that country in the period 1921-1925.

<sup>3</sup>Russian Empire to 1920; after 1920 Poland, Finland, Estonia, and Lithuania (i.e., not including the Soviet Union for which there are no adequate data). Data are missing for Estonia in 1921-1923 and for Finland in 1939.

<sup>4</sup>Four-year averages.

<sup>5</sup>1936-1938 average.

<sup>6</sup>1939 figure does not include Austria and Czechoslovakia annexations.

<sup>7</sup>Data for France in the years 1934-1939 were not available so that the 1931-1933 average for that country was assumed to apply. The numbers in any case were small.

<sup>8</sup>Spain 1936-1939 estimated (no official data are available owing to the Spanish Civil War).

<sup>9</sup>Turkey in Europe, Greece, Bulgaria, Rumania, and Yugoslavia (Serbia and

Montenegro to 1920). Figures for the following countries and dates are missing: Greece, 1921-1924; Bulgaria, 1921-1926, 1939; Rumania, 1925. Where one or more years were missing the annual averages were computed on the basis of the years for which data are available. The group average was derived from the sum of these.

Sources:

1846-1920: Walter F. Willcox (ed.), *International Migrations*, (New York: National Bureau of Economic Research, 1929), Vol. I, *Statistics*, compiled on behalf of the International Labour Office by Imre Ferenczi.

1920-1924: *Ibid.* Also in International Labour Office, *Migration Movements, 1920-1924*, Studies and Reports, Series O, No. 2, (Geneva, 1926).

1925-1939: International Labour Office, *Year-Book of Labour Statistics*, annual editions, 1935-1944, (Geneva and Montreal, various dates). Also, International Labour Office, *Migration Movements, 1925-1927*, Studies and Reports, Series O, No. 4, (Geneva, 1929) and *The Migration of Workers, Studies and Reports, Series O, No. 5*, (Geneva, 1936). For supplementary data, reference was also made to Germany, Statistisches Reichsamt, *Statistisches Jahrbuch*; annual editions 1936-1938, (Berlin, various dates), and *Wirtschaft und Statistik* 21(18):344-348. The Italian series was drawn from Italy, Istituto Centrale di Statistica, *Anuario demografico, 1941*, (Rome 1941), p. 53, and the Spanish figures for 1926-1935 from Spain, Dirección General de Estadística, *Anuario estadístico de España, 1942*, (Madrid, 1942) p. 205.

TABLE 2  
Overseas Immigration of Aliens into the Chief Countries of Destination, 1900-1939 (in thousands)

Date	Argentina	Brazil	Canada	U. S. A. (fiscal years)	Date	Argentina	Brazil	Canada	U. S. A. (fiscal years)
1900	85	40		448	1921	98	58	68	702
1901	90	85	31 <sup>1</sup>	487	1922	129	64	47	243
1902	58	52	41 <sup>1</sup>	647	1923	195	84	117	342
1903	75	34	79 <sup>1</sup>	855	1924	160	95	108	417
1904	126	46	85 <sup>1</sup>	809	1925	125	82	67	159
1905	177	70	103 <sup>1</sup>	1,022					
1906	253	74	121 <sup>1</sup>	1,094	1926	135	118	115	168
1907	209	68	90 <sup>1</sup>	1,264	1927	162	97	135	183
1908	256	90	92	738	1928	129	76	137	173
1909	231	84	93	684	1929	140	95	133	173
1910	290	86	178	966	1930	124	61	79	164
1911	226	132	219	802	1931	56	26	12	72
1912	323	177	256	759	1932	31	31	7	25
1913	302	190	303	1,112	1933	24	46	6	15
1914	115	79	100	1,118	1934	28	45	6	19
1915	45	30	12	232	1935	35	29	6	25
1916	33	31	14	179	1936	36	13	7	26
1917	18	29	7	172	1937	41	34	10	36
1918	14	20	10	60	1938	38	18	11	51
1919	41	36	66	54	1939	15	22	11	70
1920	87	69	99	288	1940				57

<sup>1</sup>Fiscal Years. Figure for 1907 refers to nine months ending March 31.

Sources:  
Argentina and Brazil—1900-1924: *International Migrations*, Vol. I, pp. 539-540, 550-552. 1925-1927: International Labour Office, *Migration Movements, 1925-1927*, *op. cit.*, p. 44. 1928-1939: Raul C. Migone (ed.), *Inter-American Statistical Yearbook, 1942*, (New York: The Macmillan Co., 1942), pp. 112-113.

Canada—1901-1907: Canada, Dominion Bureau of Statistics, *The Canada Year Book, 1936*, (Ottawa, 1936), p. 186. 1907-1939: *Ibid.*, 1941, p. 111.  
United States—1900-1924: *International Migrations*, Vol. I, pp. 389-393. 1924-1939: U. S. Department of Commerce, *Statistical Abstract of the United States*, various years, (Washington: Govt. Printing Office).

TABLE 3

European-Born Living Overseas According to Censuses in Overseas Countries  
in the Interwar Period (in thousands)

Place of Birth	Place of Residence			Total
	North America <sup>1</sup>	Latin America <sup>2</sup>	S. Africa Australasia <sup>3</sup>	
Albania.....	8.8	— <sup>4</sup>	.8	9.6
• Austria.....	408.3	76.1 <sup>5</sup>	2.2	486.6
Belgium.....	81.2	7.6	1.3	90.1
Bulgaria.....	10.9	2.8	.3	14.0
Czechoslovakia.....	514.5	11.9	.7	527.1
Denmark.....	196.7	7.8	7.2	211.7
Estonia.....	3.6	— <sup>4</sup>	1.0	4.6
Finland.....	172.8	— <sup>4</sup>	2.1	174.9
France.....	152.3	117.5	4.2	274.0
Germany.....	1,648.0	123.5	32.5	1,804.0
Greece.....	180.1	9.4	10.4	199.9
Hungary.....	303.0	— <sup>5</sup>	.3	303.3
Italy.....	1,833.0	1,829.6	29.3	3,691.9
Latvia.....	20.7	— <sup>4</sup>	3.9	24.6
Lithuania.....	199.3	— <sup>4</sup>	13.5	212.8
Netherlands.....	143.9	9.0	7.8	160.7
Norway.....	380.5	1.0	5.1	386.6
Poland.....	1,439.8	74.8	7.9	1,522.5
Portugal.....	73.2	454.7	.8	528.7
Rumania.....	186.7	8.1	.3	195.1
Spain.....	59.4	1,568.8	1.1	1,629.3
Sweden.....	629.7	3.8	5.9	639.4
Switzerland.....	119.1	24.1	3.4	146.6
Turkey.....	2.3	— <sup>4</sup>	.3	2.6
United Kingdom & Ireland.....	3,281.3	60.8	1,096.4	4,438.5
England and Wales.....	1,616.0	—	755.7	2,371.7
Scotland.....	634.1	—	217.0	851.1
North Ireland.....	1,031.2	—	123.7	1,154.9
Ireland.....	—	—	—	—
U.S.S.R.....	1,281.8	132.1	21.6	1,435.5
Yugoslavia.....	228.5	17.5	6.1	252.1
Other European.....	48.4	7.8	7.0	63.2
Total.....	13,607.8	4,548.7	1,273.4	19,429.9

<sup>1</sup>Includes United States (1930) and Canada (1931).

<sup>2</sup>Includes the following: Argentina (1927), Brazil (1920), Chile (1930), Colombia (1930), Cuba (1920), Mexico (1930), Peru (1942), Uruguay (1910), and Venezuela (1930).

<sup>3</sup>Includes Union of S. Africa (1936), Australia (1933), and New Zealand (1921).

<sup>4</sup>Included in "Other European".

<sup>5</sup>Immigrants from Hungary included under joint figure for Austria-Hungary.

Sources:

United States—U. S. Bureau of the Census, *Fifteenth Census of the United States, 1930*, Vol. II, (Washington: U.S. Gov't Printing Office, 1933), p. 233.

Canada—*The Canada Year Book, 1933*, p. 129.

Latin America—*Inter-American Statistical Yearbook, 1942*, pp. 115-127.

Union of South Africa—Office of Census and Statistics, *Official Year Book of the Union of South Africa, 1940*, p. 1015.

Australia—Bureau of Census and Statistics, *Census of the Commonwealth of Australia, 1933*, (Canberra, 1936), pp. 732-733.

New Zealand—International Labour Office, *World Statistics of Aliens, Studies and Reports, Series O, No. 6*, (Geneva, 1936), pp. 152-160.

Cross Classification of Place of Birth (or Political

PLACE OF ORIGIN	PLACE OF RESIDENCE												
	P Austria 1934	P Belgium 1930	P Bulgaria 1934	N Czecho- slovakia 1930	P Denmark 1930	N Estonia 1934	N & P Finland <sup>1</sup> 1930	N France 1931	N Germany <sup>2</sup> 1933	P Greece 1928	P Hungary 1930	P Ireland 1936	N Italy 1931
Albania.....	—	—	405	—	—	—	—	29	14,771	—	— <sup>c</sup>	400	
Austria.....	—	1,829	1,324	45,688	1,123	35	—	11,127	80,663	770	37,674	9,247	
Belgium.....	—	—	—	—	245	5	—	320,590	5,202	—	161	643	
Bulgaria.....	—	—	—	2,353	21	—	—	4,914	913	52,840	—	205	
Czechoslovakia.....	441,521	9,527	1,357	—	271	98	—	48,936	186,189	223	237,902	134 <sup>c</sup> 3,972	
Denmark.....	—	—	—	—	—	108	1,126	3,318	17,387	—	—	—	
Estonia.....	—	—	—	—	165	—	—	—	981	—	—	—	
Finland.....	—	—	—	—	914	217	—	—	393	—	—	—	
France.....	—	155,228	538	746	541	42	109	—	137,912	2,248	—	351 6,089	
Germany.....	65,783	30,453	—	40,174	29,994	1,149	4,259	104,933	—	1,710	7,461	529 8,994	
Greece.....	—	1,032	99,440	—	34	11	—	20,874	1,506	—	—	2,355	
Hungary.....	55,197	4,479	1,247	32,144	131	14	—	19,731	10,436	269	—	2,640	
Ireland.....	—	—	—	—	—	—	—	—	56	—	—	256	
Italy.....	41,841	26,482	609	3,869	255	13	—	908,680	22,470	4,178	3,950	325 —	
Latvia.....	—	—	—	—	326	1,128	—	—	2,738	—	—	—	
Lithuania.....	—	—	—	—	151	119	—	—	19,480	—	—	172 —	
Netherlands.....	—	74,060	—	—	389	26	—	11,052	80,553	—	—	130 526	
Norway.....	—	—	—	—	6,242	8	1,052	1,910	1,266	—	—	—	
Poland.....	60,859	42,266	603	74,248	5,242	410	—	521,346	706,680	—	10,436	183 1,597	
Portugal.....	—	—	—	—	33	2	—	49,663	138	—	—	211	
Rumania.....	18,804	3,016	40,379	9,060	69	2	—	19,704	4,630	3,902	195,576	— 668	
Spain.....	—	2,676	—	—	63	1	—	378,799	1,263	—	—	1,548	
Sweden.....	—	—	—	—	31,379	97	11,460	2,693	3,284	—	—	204	
Switzerland.....	6,756	5,258	—	1,004	441	143	341	118,189	39,706	428	—	105 12,556	
Turkey.....	—	1,591	61,873	—	—	—	—	41,233	—	986,879	—	— 684	
United Kingdom.....	—	18,153	—	683	1,872	146	589	51,674	5,763	2,321	—	82,112 4,428	
U.S.S.R. <sup>3</sup> .....	—	8,810	13,157	15,993	2,456	492	34,936	82,900	12,758	46,333	4,493	483 1,341	
Yugoslavia.....	73,655	6,906	47,416	8,549	15	2	—	32,443	17,258	15,004	101,799	— 13,257	
Other Specified European.....	—	11,765	—	1,528	1,554	7	4,707	42,165	56,507	674	—	852 3,416	
Total Specified European.....	764,416	403,531	268,348	236,039	83,926	4,275	58,579	2,796,874	1,416,161	1,132,550	599,291	85,537 75,237	
Others & Undiffer- entiated.....	17,664	18,647	18,229	13,932	6,413	7,926	14,148	279,054	102,720	26,761	19,824	15,098 7,790	
Total.....	782,080	422,178	286,577	249,971	90,339	12,201	72,727	3,075,928 <sup>4</sup>	1,518,881	1,159,311	619,115	100,635 83,027	

P=Place-of-Birth Statistics

N=Nationality Statistics

<sup>1</sup>Figures for Finland are the result of adding aliens to persons of Finnish nationality born abroad. Since the birthplace of aliens is not given, foreign birth was assumed though this would not be true in all cases.

<sup>2</sup>Data for Germany relate to aliens, plus Germans reported as resident in ceded territories in 1913 (i.e., chiefly refugees). These were as follows: Den-

mark (11,896), France (132,045), Lithuania (15,545), Poland (558,588), and Danzig (44,047), the last named being included under "Other Specified European."

<sup>3</sup>Place-of-Birth data for the foreign-born in Norway are given only for the total and for those born in Sweden. (The latter figure is entered in the table.) The total number of foreign-born in 1930 was 53,650, of aliens 35,114.

## LE 4

## Nationality) and Residence in Interwar Europe

PLACE OF RESIDENCE												PLACE OF ORIGIN
P	N	N	N	N	P	P	P	P	N & P	P	Total Specified	
Latvia 1930	Lithuania 1930	Netherlands 1930	Norway <sup>2</sup> 1930	Portugal 1930	Spain 1930	Sweden 1930	Switzerland 1930	Turkey <sup>4</sup> 1935	United Kingdom <sup>5</sup>	Yugoslavia 1931	Total Specified	
—	—	1	—	—	—	—	15	12,251	—	7,609	35,481	Albania
—	32	8,841	194	—	645	715	28,947	1,344	4,277	29,521	263,996	Austria
—	—	25,404	26	264	987	140	1,771	175	10,368	—	365,981	Belgium
—	—	45	—	—	25	—	321	227,464	—	—	289,101	Bulgaria
—	143	2,367	74	—	271	433	148	631	1,984	32,444	968,625	Czechoslovakia
—	60	352	4,277	—	260	8,726	621	—	5,921	—	42,156	Denmark
10,383	90	100	38	—	—	492	14	—	—	—	12,263	Estonia
—	29	30	1,065	—	39	9,746	43	—	1,096	—	13,572	Finland
—	25	2,053	85	1,616	27,956	599	45,658	2,186	30,137	—	414,119	France
3,445	4,838	101,955	2,227	1,151	8,361	8,566	164,606	1,839	29,233	—	621,660	Germany
—	—	204	11	—	182	22	443	367,801	2,279	9,941	506,135	Greece
—	—	2,826	49	—	226	108	2,361	1,127	1,232	66,053	200,270	Hungary
—	—	3	—	—	—	32	—	—	423,082 <sup>6</sup>	—	423,429	Ireland
—	—	2,606	87	495	4,207	367	78,017	7,146	25,533	54,204	1,185,334	Italy
—	1,478	131	117	—	—	550	25	—	—	—	6,493	Latvia
40,267	—	80	154	—	—	149	17	—	3,375	—	63,964	Lithuania
—	—	—	172	—	398	208	2,118	290	8,548	—	178,470	Netherlands
—	—	274	—	41	371	14,731	190	—	4,531	—	30,616	Norway
13,113	20	5,931	133	172	233	1,065	130	304	44,941	—	1,489,912	Poland
—	—	29	—	—	27,640	—	162	—	1,215	—	79,093	Portugal
—	—	254	5	—	131	—	828	61,649	4,669	26,692	390,038	Rumania
—	—	75	177	13,092	—	64	1,311	208	4,784	—	403,901	Spain
—	—	426(P)	31,416	—	360	—	339	—	4,884	—	86,542	Sweden
—	118	1,140	63	288	2,152	215	—	188	12,759	—	201,850	Switzerland
—	—	—	—	—	—	—	736	—	2,247	—	1,095,243	Turkey
—	110	2,511	512	2,219	8,141	1,270	6,961	5,166	—	—	194,631	United Kingdom
58,285	103	763	494	47	264	2,972	8,548	69,798	39,147	32,781	437,354	U.S.S.R. <sup>3</sup>
—	—	3,334	8	—	72	—	319	158,145	632	—	478,814	Yugoslavia
—	—	190	229	—	746	217	1,709	—	14,187	—	140,453	Other Specified European
125,493	7,046	161,925	41,453	19,385	83,667	51,387	346,358	917,712	681,061	259,245	10,619,496	Total Specified European
3,137	11,185	13,925	2,359	11,058	71,873	10,270	12,810	44,447	333,226	45,789	1,108,285	Others & Undifferentiated
128,630	18,231	175,850	43,812	30,443	155,540	61,657	359,168	962,159	1,014,287	305,034	11,727,781	Total

<sup>1</sup>Including both European and Asiatic territories.

<sup>2</sup>Data for England and Wales & Scotland refer to Place-of-Birth statistics in 1931, those for Northern Ireland (aside from the figure for the Irish Free State) refer to nationality statistics in 1926.

<sup>3</sup>The Irish-born were distributed in the United Kingdom as follows: England and Wales (303,676), Scotland (55,487), Northern Ireland (63,919).

<sup>4</sup>Spain and Portugal.

<sup>5</sup>Nationality figures include both Soviet citizens and Russian refugees, the latter usually being much the larger element.

<sup>6</sup>French figures include naturalized citizens.

TABLE 5

## Balances of International Migration in Europe, About 1920-1930

Country	Type of Source Data	Period	Migration Balance (+) or (-) (thousands)	Average Annual Migration		CHIEF SOURCES AND DESTINATIONS
				Numbers (thousands)	Per 1,000 Average Population	
Austria.....	C	1923-1934	- 31	- 3	- 0.4	Net loss chiefly through overseas emigration.
Belgium.....	C	1920-1930	+ 140	+ 14	+ 1.8	Substantial immigration from Poland and Italy with small increments from almost all European countries.
Bulgaria.....	C	1920-1926	+ 58	+ 10	+ 1.9	Exchange of population with Greece, Turkey, and Rumania.
	C	1926-1934	- 94	- 12	- 2.1	
	E	1920-1930	- 10	- 1	-(0-1)	
Czechoslovakia.....	C	1921-1930	- 199	- 20	- 1.4	Substantial emigration overseas and to France and the Low Countries.
Denmark.....	C	1921-1930	- 37	- 4	- 1.1	Small emigration overseas.
Estonia.....	C	1922-1934	- 6	- 1	- 0.5	Small movements overseas and to Latvia.
Finland.....	C	1920-1930	- 10	- 1	- 0.3	Overseas emigration, possibly balanced by some immigration from Russia.
France.....	C	1921-1931	+1,954	+195	+ 4.8	About half from Poland and Italy; mass immigration from Spain, Portugal, Russia (émigrés), Czechoslovakia, and Turkey (i. e., Greek refugees). Net increment from every European country and North Africa.
Germany.....	C	1925-1933	- 234	- 29	- 0.5	Net loss chiefly through overseas emigration. Some immigration from German minorities abroad.
Greece.....	E	1921-1928	+ 505	+ 69	+12.2	Over a million immigrants from Turkey and several hundred thousand emigrants to that country; a loss through overseas emigration and exchange with Bulgaria.
Hungary.....	C	1920-1930	- 74	- 7	- 0.9	Emigration overseas and small movements to France and Low Countries.
Ireland.....	E	1921-1930	- 342	- 34	-11.3	Emigration overseas and to the remainder of British Isles.
Italy.....	C	1921-1931	-1,040	-104	- 2.8	Very large emigration overseas and to France; lesser movements to Low Countries.
Latvia.....	C	1920-1930	+ 193	+ 19	+11.4	Large immigration through repatriation, etc., from Russia in the early 'twenties.
	C	1925-1930	- 2	- 0	- 0.1	
Lithuania.....	E	1923-1929	- 31	- 4	-(1-2)	Chiefly overseas emigration; small emigration to Latvia.
Netherlands.....	C	1920-1930	+ 13	+ 1	+ 0.2	Immigration from Germany and Central Europe; emigration to Belgium.
Norway.....	C	1920-1930	- 81	- 8	- 2.9	Overseas emigration.
Poland <sup>1</sup> .....	C	1921-1931	+ 50	+ 5	+ 0.2	Estimated: 500,000 to France, 50,000 to Belgium, 400,000 overseas.
	C	1921-1931	- 189	- 19	- 0.7	
Portugal.....	E	1920-1930	- 950	- 95	-(3-4)	About 100,000 overseas migrants; emigration to France and apparently some outward balance to Spain.
	C	1920-1930	- 9	- 1	- 0.1	
Rumania.....	E	1920-1930	- 140	- 14	-(2-3)	Substantial overseas emigration; 50,000 emigrant aliens chiefly to Turkey; small emigration to France, Belgium and Czechoslovakia.
	E	1920-1930	- 150	- 15	-(0-1)	
Spain.....	C	1920-1930	- 20	- 2	- 0.1	Overseas emigration = 165,000, increase of Spaniards in France over 125,000.
	E	1920-1930	- 300	- 30	-(1-2)	
Sweden.....	C	1920-1930	- 91	- 9	- 1.5	Overseas emigration.
Switzerland.....	C	1920-1930	- 59	- 6	- 1.5	Large interchange of population with neighboring countries and small outward balance especially to overseas destinations.
United Kingdom	C	1921-1931	- 157	- 16	- 0.4	Chiefly net overseas emigration partially balanced by immigration from Scotland and Ireland.
		1926-1937	- 95	- 10	- 8.3	Emigration overseas and to the remainder of United Kingdom.
		1921-1931	- 392	- 39	- 8.2	Emigration overseas and to England.
Yugoslavia.....	C	1921-1931	+ 45	+ 5	+ 0.3	Some 100,000 overseas emigrants; about 50,000 to Western Europe and Turkey.
	E	1920-1930	-(140-200)	-(14-20)	-(1-2)	

<sup>1</sup>The first figure for Poland relates to census and vital statistics, which present a biased picture for reasons discussed in Chapter VII, p. 142. The second figure excludes the Eastern provinces, which are the source of much of the difficulty. The final figure, an estimate from Polish emigration statistics and the immigration of countries receiving Polish immigration, ignores the refugee movements occurring after the

First World War. The last was used in Figure 29.

## Sources:

The designation (C) signifies computation of migration balance from census and vital statistics. In these cases intercensal migration was determined by subtracting intercensal natural increase from total inter-

censal population growth. Where these materials were absent (as in Greece and Lithuania) or defective (as in Poland, Portugal, Rumania, Spain, and Yugoslavia) it was necessary to rely on estimates (E) derived from direct statistics of migration (themselves usually defective) and on statistics of countries of immigration.

TABLE 6

## Balances of International Migration in Europe, About 1930-1939

Country	Type of Source Data	Period	Migration Balance (+) or (-) (thousands)	Average Annual Migration		CHIEF SOURCES AND DESTINATIONS
				Numbers (thousands)	Per 1,000 Average Population	
Austria—See Germany.						
Belgium.....	R	1931-1938	+ 32	+ 4	+ (0-1)	Probably some immigration of refugees, but most gain occurred in 1931 and 1932. Chiefly overland emigration of Turkish minorities to Turkey; small movements to Czechoslovakia, Hungary, and Rumania.
Bulgaria.....	D	1931-1938	-111	-14	-(2-3)	
Czechoslovakia.....	D	1931-1938	- 36	- 4	-(0-1)	About equally divided between emigration overseas and overland, especially to France. Small return balance from overseas; refugee movement from Germany; small immigration from Norway and Sweden; refugee emigration in 1940.
Denmark.....	C	1931-1935	+ 31	+ 6	+ 1.7	
Finland.....	C	1931-1940	+ 27	+ 3	+ .7	Chiefly return migration to Poland. In "Greater Germany," large refugee emigration of Jews more than balanced by immigration of ethnic Germans and foreigners. In Germany proper a large immigration from Austria and the Sudetenland reflected in the deficits of those areas.
France.....	R	1931-1938	+ 15	+ 2	+(0-1)	
Germany.....	C	1931-1936	-106	-21	-.5	Emigration of ethnic minorities. Migratory gain arising almost entirely from refugee movement from incorporated territories. Emigration to England. Large movement to France in early 'thirties, and over 50,000 emigration balance to Switzerland.
Germany proper.....	C	1933-1939	+ 78	+13	+ .2	
Austria.....	C	1933-1939	+502	+85	+ 1.3	Emigration overseas and to Latvia. Probably mostly return migration to Germany, and small emigration to Belgium.
Sudetenland.....	C	1934-1939	-109	-21	- 3.2	
Greece.....	C	1930-1939	-315	-37	-10.5	Overseas loss partially balanced by net immigration overland from France. Apparently considerable backwash from overseas and, to a lesser extent, from France (according to French data). Balance of movements incident to territorial shufflings of 1940. Emigration of Moslems from the Dobruja.
Hungary.....	D	1931-1939	- 67	- 7.4	-(1-2)	
Ireland.....	C	1930-1941	+ 69	+ 7	+(0-1)	Apparently a large return balance from overseas in the early 'thirties (i. e., about 100,000) and probably some from France; but no doubt these were more than balanced by Republican refugees.
Italy <sup>1</sup> .....	C	1936-1941	- 57	-11	- 3.4	
Lithuania.....	C	1931-1936	-302	-60	- 1.4	Return migration and immigration of refugees.
Netherlands.....	D	1931-1935	-122	-24	-.6	
Norway.....	D	1934-1939	- 14	- 2	-(0-1)	Net immigration from Ireland and from overseas. Chiefly overland emigration to France, Turkey, and Czechoslovakia.
Poland.....	R	1930-1939	- 12	- 1	-(0-1)	
Portugal.....	D	1931-1939	- 4	- .4	-(0-1)	
Rumania <sup>2</sup> .....	D	1931-1939	-118	-13	-(0-1)	
Spain <sup>3</sup> .....	C	1930-1940	+ 64	+ 6	+ .9	
Sweden.....	C	1930-1941	- 83	- 8	-(0-1)	
Switzerland.....	D	1930-1939	- 18	- 2	-(0-1)	
United Kingdom <sup>4</sup> .....	C	1930-1940	+554	+55	+ 2.2	
Yugoslavia.....	E	1930-1940	—	—	-(0-1)	
	C	1931-1935	+ 32	+ 6	+ 1.0	
	C	1936-1940	+ 23	+ 5	+ .7	
	C	1931-1940	+ 55	+ 6	+ .9	
	C	1930-1941	- 6	-.5	-(0-1)	
	D	1931-1938	+191	+24	+ .5	
	D	1931-1939	- 37	- 4	-(0-1)	

<sup>1</sup>In Italy there is a large discrepancy between the computed and the direct migration statistics. Direct statistics on Italian emigration are known to be seriously defective, so the larger outward balance indicated by the computed figures is probably more reliable.

<sup>2</sup>The computed figure for Rumania relates only to the rump territory of 1941; the direct statistics refer to the interwar territory. The latter probably understate the emigration balance.

<sup>3</sup>The computed figures for Spain are clearly incorrect owing to the defects of the vital registration system in the civil war period.

<sup>4</sup>Balance of overseas migration only.

## Sources:

The designation (C) signifies computation of migration balances from census and vital statistics. Where the requisite materials (e.g., a census near the end of the period under consideration) were absent, direct

migration statistics (D) were employed. These were much more complete in the 'thirties than in the 'twenties, though still seriously defective in most countries. In a few cases (R) the existence of a civil registration system, as in Sweden, Finland, and the Netherlands, made possible the computation of migration balances comparable to those obtained with the use of census data.



TABLE 7

Internal Migration as Measured by Place-of-Birth Statistics  
(in thousands)

Country & District (with Census Date)	Population (1)	Living in District, Born Elsewhere (2)	Born in District, Living Elsewhere (3)	Net Balance of Internal Migration (2)-(3)	Total Residue of Migratory Movements (2)+(3)	Country & District (with Census Date)	Population (1)	Living in District, Born Elsewhere (2)	Born in District, Living Elsewhere (3)	Net Balance of Internal Migration (2)-(3)	Total Residue of Migratory Movements (2)+(3)
<b>AUSTRIA—1934</b> .....	6,760.2	833.4	833.4	—	1,666.7	<b>HUNGARY—1930</b> .....	8,688.3	1,464.4	1,464.4	—	2,928.8
Wien.....	1,874.1	346.0	181.8	+164.2	527.8	Transdanubia.....	2,685.5	91.0	326.7	-235.7	417.7
Niederösterreich.....	1,509.1	210.7	291.5	-80.7	502.2	Baranya.....	311.7	44.9	35.3	+9.6	80.3
Oberösterreich.....	902.3	56.8	105.3	-48.5	162.1	Fejér.....	271.2	42.7	84.9	-42.2	127.7
Salzburg.....	245.8	45.2	28.0	+17.2	73.2	Győr, Moson, etc.....	205.5	27.4	37.5	-10.1	65.0
Steiermark.....	1,015.1	89.9	81.3	+8.6	171.2	Komárom és Esztergom.....	179.1	31.2	45.8	-14.7	77.0
Kärnten.....	405.1	25.6	54.8	-29.2	80.3	Somogy.....	385.6	43.7	66.9	-23.1	110.6
Tirol.....	349.1	32.2	24.4	+7.8	56.6	Sopron.....	179.3	15.7	39.0	-23.3	54.7
Vorarlberg.....	155.4	12.0	7.4	+4.6	19.4	Tolna.....	269.2	33.4	60.1	-26.7	93.5
Burgenland.....	299.4	15.0	59.0	-44.0	74.0	Vas.....	275.0	27.0	65.5	-38.5	92.5
<b>BELGIUM—1930</b> .....	8,092.0	879.7	879.7	—	1,759.4	Veszprém.....	243.7	42.6	68.1	-25.5	110.7
Antwerpen.....	1,173.4	123.4	85.9	+37.5	209.2	Zala.....	365.3	34.2	75.4	-41.2	109.7
Brabant.....	1,680.1	316.4	135.4	+181.0	451.7	Great Plain.....	4,866.9	435.5	133.6	+301.9	569.1
West-Vlaanderen.....	901.6	47.2	104.2	-57.0	151.5	Bács-Bodrog.....	137.4	13.9	17.3	-3.3	31.2
Oost-Vlaanderen.....	1,149.2	66.1	179.0	-112.8	245.1	Békés.....	330.7	34.0	55.3	-21.3	89.4
Hainaut.....	1,270.2	143.4	106.9	+36.5	250.2	Bihar.....	176.0	17.9	26.0	-8.1	43.8
Liège.....	973.0	89.9	77.1	+12.8	167.0	Csanád, Arad és Tor.....	174.3	18.9	28.2	-9.3	47.1
Limburg.....	367.6	26.6	64.0	-37.4	90.6	Csongrád.....	343.9	37.1	50.3	-13.2	87.4
Luxembourg.....	220.9	16.8	47.8	-31.1	64.6	Hajdu.....	295.8	40.8	41.1	-0.3	81.9
Namur.....	356.0	50.0	79.4	-29.4	129.4	Jász-Nagykun-Szolnok.....	412.5	43.6	82.6	-39.0	126.3
<b>FINLAND—1930</b> .....	3,380.7	416.0	416.0	—	832.0	Pest-P.-S.-Kiskun.....	1,445.6	326.0	151.7	+174.2	477.7
Uudenmaa.....	480.1	151.5	40.3	+111.2	191.8	Budapest.....	1,005.2	416.8	169.9	+246.9	586.8
Turu-Pori.....	489.5	35.6	63.2	-27.6	98.8	Szabolcs és Ung.....	394.9	35.6	50.7	-15.0	86.3
Ahvenanmaa.....	19.7	2.3	1.9	+0.4	4.2	Szatmár, etc.....	149.6	10.5	20.2	-9.7	30.6
Häme.....	370.3	64.6	79.1	-14.5	143.7	North.....	1,135.9	66.3	132.4	-66.1	198.7
Viipuri.....	587.6	63.7	48.9	+14.8	112.6	Abauj-Torna.....	91.4	9.1	17.6	-8.5	26.7
Mikkeli.....	198.5	17.7	44.7	-27.0	62.3	Borsod, etc.....	358.3	43.4	40.2	+3.2	83.6
Kuopio.....	366.9	19.4	66.3	-46.9	85.6	Heves.....	316.9	33.4	61.2	-27.8	94.5
Vaasa.....	481.7	32.8	51.2	-18.3	84.0	Nógrád és Hont.....	222.9	20.2	42.1	-21.9	62.2
Oulu.....	386.3	28.3	20.4	+7.9	48.7	Zemplén.....	146.3	20.4	31.4	-11.0	51.8
<b>GREECE—1928</b> .....	6,204.7	407.1	407.1	—	814.1	<b>IRELAND—1936</b> .....	2,968.4	159.8	159.8	—	319.5
Central Greece.....	1,592.8	257.6	42.9	+214.7	300.5	Leinster.....	1,220.4	98.6	39.5	+59.2	138.1
Thessaly.....	493.2	30.5	26.6	+3.9	57.1	Munster.....	942.3	31.4	61.1	-29.7	92.5
Ionian Islands.....	213.2	5.3	38.4	-33.1	43.7	Connacht.....	525.5	19.4	38.4	-19.0	57.8
Cyclades.....	129.7	4.5	62.0	-57.5	66.5	Ulster (Part of).....	280.3	10.3	20.8	-10.5	31.1
Peloponnesus.....	1,053.3	29.3	117.3	-88.0	146.6	<b>ITALY—1931</b> .....	41,176.7	3,007.1	3,007.1	—	6,014.2
Macedonia.....	1,412.5	53.1	24.1	+28.9	77.2	Piemonte.....	3,497.8	356.2	257.1	+99.1	613.3
Epirus.....	312.6	5.6	38.2	-32.5	43.8	Liguria.....	1,437.0	370.8	95.3	+275.5	455.0
Aegean Islands.....	307.7	3.9	28.5	-24.7	32.4	Lombardia.....	5,545.3	527.3	294.3	+233.0	821.5
Crete.....	386.4	5.2	21.8	-16.6	27.1	Venezia Tridentina.....	650.1	48.2	42.4	+5.7	90.6
Western Thrace.....	303.2	12.0	7.2	+4.8	19.2	Veneto.....	4,123.3	160.6	447.3	-235.6	607.9
						Venezia Giulia & Zara.....	978.9	132.1	54.3	+77.8	186.4

TABLE 7 (Cont.)

Internal Migration as Measured by Place-of-Birth Statistics  
(in thousands)

Country & District (with Census Date)	Population (1)	Living in District, Born Elsewhere (2)	Born in District, Living Elsewhere (3)	Net Balance of Internal Migration (2)-(3)	Total Residue of Migratory Movements (2)+(3)	Country & District (with Census Date)	Population (1)	Living in District, Born Elsewhere (2)	Born in District, Living Elsewhere (3)	Net Balance of Internal Migration (2)-(3)	Total Residue of Migratory Movements (2)+(3)
<b>ITALY—1931 (cont.)</b>						<b>SWEDEN—1930 (cont.)</b>					
Emilia.....	3,218.5	182.8	322.2	-139.4	505.0	Södermanland.....	189.2	45.7	66.0	-20.3	111.8
Toscana.....	2,892.4	164.4	248.5	-84.1	413.0	Östergötland.....	309.9	47.9	73.1	-25.2	121.1
Marche.....	1,217.7	59.6	152.2	-92.6	211.7	Jönköping.....	231.5	38.4	51.8	-13.4	90.2
Umbria.....	694.1	55.1	97.5	-42.4	152.5	Kronoberg.....	155.6	22.2	51.1	-28.9	73.3
Lazio.....	2,385.1	478.3	124.4	+353.9	602.6	Kalmar.....	231.4	31.3	60.8	-29.5	92.1
Abruzzi & Molise.....	1,498.6	51.8	137.1	-85.3	188.8	Gotland.....	57.5	7.7	7.9	-.2	15.5
Campania.....	3,494.7	172.7	187.0	-14.4	359.7	Blekinge.....	144.9	19.0	41.4	-22.4	60.3
Puglie.....	2,486.6	82.8	197.0	-114.2	279.7	Kristianstad.....	245.9	44.3	66.9	-22.6	111.2
Lucania.....	507.8	24.4	44.2	-19.8	68.6	Malmöhus.....	510.6	85.1	68.5	+16.6	153.6
Calabria.....	1,669.0	44.2	85.5	-41.3	129.8	Halland.....	150.3	23.8	31.6	-7.8	55.4
Sicilia.....	3,896.9	65.0	160.3	-95.3	225.3	Göteborg o. Bohus.....	457.0	100.9	45.0	+55.9	145.8
Sardegna.....	973.1	31.0	60.6	-29.6	91.7	Älvsborg.....	313.3	57.8	69.0	-11.2	126.8
<b>LATVIA—1930</b>						<b>SWITZERLAND—1930</b>					
Riga (City).....	377.9	174.5	26.5	+148.0	201.1	Zürich, etc.....	805.0	198.6	93.6	+104.9	292.2
Vidzeme.....	404.8	46.2	105.6	-59.4	151.7	Bern.....	688.8	75.0	164.8	-89.8	239.9
Kurzeme.....	288.1	25.4	42.5	-17.1	67.9	Luzern, etc.....	343.5	47.4	64.2	-16.8	111.6
Zemgale.....	288.1	45.8	77.2	-31.4	123.0	Fribourg.....	143.2	14.3	37.9	-23.6	52.2
Latgale.....	541.1	25.3	65.3	-40.0	90.5	Solothurn, etc.....	651.4	119.0	112.1	+6.8	231.1
<b>SCOTLAND—1931</b>						<b>YUGOSLAVIA—1931</b>					
Northern.....	1,154.8	107.5	192.3	-84.9	299.8	Drav.....	1,144.3	22.6	57.3	-34.6	79.9
East Central.....	1,129.8	201.8	150.5	+51.2	352.3	Drin.....	1,534.7	84.8	70.6	+14.2	155.4
West Central.....	2,307.6	227.8	167.4	+60.4	395.2	Dunav.....	2,387.3	109.7	153.1	-43.4	262.9
Southern.....	250.8	41.5	68.3	-26.8	109.8	Morav.....	1,435.6	62.7	75.3	-12.6	137.9
<b>SPAIN—1930</b>						<b>YUGOSLAVIA—1931 (cont.)</b>					
Andalucía.....	4,609.9	389.6	484.0	-94.4	873.6	Primor.....	901.7	20.2	66.7	-46.5	86.9
Aragón.....	1,031.6	89.8	214.4	-124.6	304.2	Sava.....	2,704.4	121.6	128.6	-7.1	250.2
Asturias.....	791.9	35.5	54.6	-19.1	90.1	Vardar.....	1,574.2	66.0	51.4	+14.5	117.4
Castilla la Nueva.....	2,878.5	732.7	323.4	+409.3	1,056.2	Vrba.....	1,037.4	41.5	51.8	-10.3	93.3
Castilla la Vieja.....	1,475.0	125.2	345.3	-220.1	470.5	Zetska.....	925.5	38.6	77.8	-39.2	116.3
Cataluña.....	2,791.3	744.5	288.2	+456.3	1,032.7	Beograd.....	288.9	181.7	16.8	+164.9	198.6
Extremadura.....	1,152.2	45.8	109.4	-63.7	155.2						
Galicia.....	2,230.3	82.3	124.7	-42.3	207.0						
León.....	1,570.3	120.1	270.5	-150.4	390.6						
Murcia.....	978.1	52.2	178.4	-126.3	230.6						
Valencia.....	1,896.7	144.2	232.6	-88.3	376.8						
Vascongadas & Navarra.....	1,237.6	227.1	162.6	+64.5	389.7						
Baleares.....	365.5	12.6	16.7	-4.1	29.3						
Canarias.....	555.1	17.8	14.6	+3.1	32.4						
<b>SWEDEN—1930</b>											
Stockholm (stad).....	502.2	287.5	85.3	+202.2	372.8						
Stockholm (län).....	265.1	130.4	72.0	+58.4	202.4						
Uppsala.....	138.2	41.0	54.0	-13.0	95.0						

TABLE 8

Total Migration Balances and Migration as a Factor  
in Population Change

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Migration and Population Change, Interwar Periods				
	ca. 1920-1930		ca. 1930-1940		Date	Average Annual Rates per 1,000 Population			Type <sup>4</sup>
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>		Pop. Chge.	Nat. Inc.	Net Migration	
AUSTRIA <sup>5</sup> .....	-30.9	-.4	-147.2	-4.1	1923-34	3.1	3.5	-.4	B1
Wien.....	49.1	2.4	-87.8	-8.5		-.3	-2.7	2.4	C3
Niederösterreich.....	-31.4	-1.9	-51.9	-5.9		2.0	4.0	-1.9	B1
Oberösterreich.....	-23.7	-2.4	3.1	.6		3.1	5.5	-2.4	A3
Salzburg.....	8.0	3.1	7.3	5.6		9.8	6.7	3.1	C1
Steiermark.....	-20.0	-1.8	-20.3	-3.5		3.6	5.5	-1.8	B1
Kärnten.....	-5.2	-1.2	.4	.2		8.4	9.6	-1.2	B1
Tirol.....	7.5	2.0	{ 2.1	{ .8		10.2	8.1	2.0	B2
Vorarlberg.....	4.1	2.5				10.6	8.1	2.5	C1
Burgenland.....	-19.4	-6.0				4.0	10.0	-6.0	A2
BELGIUM.....	139.5	1.8	-45.2	.6	1920-39	6.2	4.9	1.2	B2
Antwerpen.....	30.7	2.8	4.5	.4		10.6	9.0	1.6	B2
Brabant.....	89.2	5.6	71.2	4.6		7.9	2.8	5.1	C2
West-Vlaanderen.....	13.5	1.6	2.1	.3		9.9	9.0	.9	B2
Oost-Vlaanderen.....	-27.9	-2.5	-14.5	-1.4		4.7	6.6	-1.9	B1
Hainaut.....	17.0	1.4	-12.0	-1.1		.6	.4	.2	B2
Liège.....	26.6	2.8	4.8	.5		2.6	.8	1.7	B2
Limburg.....	9.9	3.0	-3.7	-1.0		17.6	16.7	.9	B2
Luxembourg.....	-15.8	-7.1	-7.7	-3.9		-1.2	4.4	-5.6	A2
Namur.....	-3.7	-1.0	.5	.1		1.1	1.6	-.5	B1
BULGARIA.....	-94.2	-2.0			1926-34	13.0	15.0	-2.0	B1
Bourgas.....	-5.5	-1.3				16.8	18.1	-1.3	B1
Vratza.....	-19.5	-3.4				11.0	14.5	-3.4	A3
Plovdiv.....	-17.3	-2.9				14.6	17.4	-2.9	A3
Pléven.....	-26.8	-3.5				8.3	11.8	-3.5	A3
Sofia.....	29.4	3.4				19.3	15.9	3.4	C1
Stara Zagora.....	-31.5	-5.0				9.1	14.1	-5.0	A3
Choumen.....	-23.1	-3.0				11.8	14.8	-3.0	A3
CZECHOSLOVAKIA <sup>6</sup> ..	-198.7	-1.4			1921-30	8.1	9.5	-1.4	B1
Bohemia.....	31.6	.5				6.5	6.0	.5	B2
Praha.....	130.3	7.2				12.7	5.4	7.2	C2
Pardubice.....	-19.7	-4.3				2.4	6.7	-4.3	A2
Hradec Králové.....	-4.0	-.8				3.9	4.7	-.8	B1
Mladá Boleslav.....	9.3	1.1				5.0	3.9	1.1	B2
Ceská Lípa.....	18.7	3.3				8.0	4.7	3.3	C1
Louny.....	-9.6	-1.2				6.2	7.5	-1.2	B1
Karlovy Vary.....	3.6	.7				9.3	8.6	.7	B2
Plzeň.....	-47.7	-6.2				1.2	7.3	-6.2	A2
Ceské Budějovice.....	-49.4	-8.8				-1.9	6.8	-8.8	A1
CZECHOSLOVAKIA <sup>6</sup> ..									
CZECHOSLOVAKIA <sup>6</sup> ..									
Moravia-Silesia.....	-93.0	-2.8				6.7	9.4	-2.8	A3
Jihlava.....	-30.3	-6.8				2.2	9.0	-6.8	A2
Brno.....	2.8	.4				8.3	7.9	.4	B2
Olomouc.....	-25.2	-3.0				5.1	8.1	-3.0	A3
Uherské Hradiště.....	-19.3	-5.4				7.0	12.3	-5.4	A3
Moravská Ostrava.....	-6.3	-1.0				8.2	9.1	-1.0	B1
Ceský Těšín.....	-14.8	-4.6				10.1	14.7	-4.6	A3
Slovakia.....	-121.9	-3.9				10.7	14.6	-3.9	A3
Turčiansky S. M.....	-23.7	-5.7				11.0	16.7	-5.7	A3
Liptovský S. M.....	-14.2	-4.8				9.2	14.0	-4.8	A3
Košice.....	-35.6	-5.5				11.7	17.2	-5.5	A3
Zvolen.....	-20.8	-4.0				6.7	10.7	-4.0	A3
Bratislava.....	2.1	.3				14.0	13.7	.3	B2
Nitra.....	-29.7	-6.5				9.1	15.7	-6.5	A3
Subcarpathian Russia.....	-15.3	-2.3				18.6	20.9	-2.3	B1
DENMARK.....	-28.3	-1.6	31.1	1.7	1921-35	8.6	8.7	-.2	B1
Øerne (Islands).....	13.3	1.4	62.8	6.3		9.5	6.3	3.1	C1
Sjælland.....	25.0	3.6	71.6	9.9		11.2	5.7	5.5	C1
Københavns Komm.....	16.5	5.5	37.3	11.6		11.5	5.4	6.1	C2
Bornholm.....	-1.8	-7.8	-1.1	-4.7		2.3	7.7	-5.4	A2
Lolland-Falster.....	-5.3	-7.9	-6.6	-10.0		1.9	9.4	-7.5	A2
Fyn.....	-4.6	-2.7	-1.1	-.6		6.1	7.7	-1.6	B1
Jylland (Jutland).....	-41.7	-5.2	-31.7	-3.9		7.5	11.5	-4.1	A3
Østlige Jylland.....	-7.7	-2.7	-1.9	-.6		8.0	9.8	-1.8	B1
Nordlige Jylland.....	-13.7	-6.6	-11.2	-5.3		6.6	12.3	-5.7	A3
Vestlige Jylland.....	-11.7	-5.4	-16.4	-7.3		7.3	13.0	-5.7	A3
Sydlig Jylland.....	-8.6	-9.7	-2.2	-2.4		8.3	11.6	-3.2	A3
ESTONIA.....	-5.6	-.5			1922-34	1.7	2.2	-.5	B1
FINLAND <sup>7</sup> .....	-10.5	-.3	14.9	.5	1920-38	7.6	7.6	.0	B2
Uudenmaa.....	46.2	10.3	66.8	15.3		15.5	3.0	12.5	C2
Turu-Pori.....	-9.4	-2.0	-9.1	-2.2		4.3	6.3	-2.1	B1
Ahvenanmaa.....	-1.1	-5.4	.4	2.0		-.2	1.9	-2.1	B1
Häme.....	-7.4	-2.0	6.5	2.0		6.3	6.6	-.2	B1
Viipuri.....	5.6	1.0	3.0	.6		8.9	8.1	.8	B2
Mikkeli.....	-14.7	-7.5	-16.2	-10.0		-1.0	7.5	-8.5	A1
Kuopio.....	-17.8	-5.0	-16.7	-5.4		5.1	10.2	-5.2	A2
Vaasa.....	-18.2	-3.9	-14.0	-3.0		4.5	8.0	-3.5	A3
Oulu.....	6.3	1.8	-5.7	-1.6		12.8	12.5	.3	B2

TABLE 8 (Cont.)

Country and District	Balance of All Migration, Intercensal Periods <sup>2</sup>				Migration and Population Change, Interwar Periods				
	ca. 1920-1930		ca. 1930-1940		Date	Average Annual Rates per 1,000 Population			Type <sup>4</sup>
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>		Pop. Chge.	Nat. Inc.	Net Migration	
FRANCE.....	1,954.2	4.8	-106.4	-5	1921-36	4.4	1.4	3.0	C2
Ain.....	8.0	2.5	-3.9	-2.4		.2	-.7	.9	B2
Aisne.....	34.5	7.6	-13.8	-5.7		9.3	6.1	3.2	C1
Allier.....	12.7	3.4	1.1	.6		-.4	-2.9	2.5	B2
Alpes (Basses).....	-1.7	-1.9	-1.2	-2.8		-5.1	-2.9	-2.2	B1
Alpes (Hautes).....	-3.2	-3.6	.3	.7		-.8	1.4	-2.2	B1
Alpes-Maritimes.....	136.4	32.0	23.1	9.2		24.0	-.5	24.4	C3
Ardèche.....	-12.5	-4.3	-8.8	-6.3		-5.1	-.1	-5.0	A1
Ardennes.....	1.7	.6	-10.3	-7.1		2.6	4.5	-2.0	B1
Ariège.....	-5.9	-3.5	-2.5	-3.2		-7.2	-3.8	-3.4	A1
Aube.....	15.3	6.5	-3.7	-3.1		3.4	.0	3.3	C2
Aude.....	12.2	4.2	-10.0	-6.9		-.4	-.9	.5	B2
Aveyron.....	-11.1	-3.4	-9.4	-5.9		-3.8	.5	-4.2	A1
Belfort.....	.6	.6	-2.3	-4.7		3.5	4.7	-1.2	B1
Bouches-du-Rhône.....	257.2	26.5	125.9	21.7		24.9	.0	24.9	C2
Calvados.....	8.8	2.2	-2.4	-1.2		3.4	2.3	1.1	B2
Cantal.....	-9.0	-4.6	-4.1	-4.2		-2.9	1.6	-4.5	A1
Charente.....	-4.3	-1.4	-.8	-.5		-1.5	-.4	-1.1	B1
Charente-Inf.....	-1.6	-.4	4.3	2.1		.1	-.3	.4	B2
Cher.....	-3.8	-1.3	-.2	-.2		-3.6	-2.7	-.9	B1
Corrèze.....	-10.6	-3.9	.0	.0		-2.7	-.2	-2.6	A1
Corse.....	8.9	3.1	23.4	15.1		9.0	1.9	7.1	C2
Côte-d'Or.....	16.7	5.1	2.4	1.4		2.7	-1.2	3.9	C3
Côtes-du-Nord.....	-41.1	-7.5	-13.1	-4.9		-3.2	3.5	-6.6	A1
Creuse.....	-15.1	-6.9	-2.2	-2.1		-8.2	-2.8	-5.3	A1
Dordogne.....	-11.8	-3.0	5.0	2.6		-1.6	-.5	-1.1	B1
Doubs.....	7.7	2.6	-5.8	-3.8		4.4	4.0	.5	B2
Drôme.....	8.4	3.2	3.4	2.6		.9	-2.0	3.0	C3
Eure.....	-1.5	-.5	-4.4	-2.9		.2	1.5	-1.3	B1
Eure-et-Loir.....	.9	.3	-3.4	-2.7		.4	1.1	-.7	B1
Finistère.....	-67.6	-9.0	-2.6	-.7		-.5	5.7	-6.2	A1
Gard.....	17.9	4.4	-6.6	-3.3		-.1	-2.0	1.8	B2
Garonne (Haute).....	33.3	7.7	24.6	10.9		5.2	-3.6	8.8	C3
Gers.....	8.4	4.3	3.0	3.2		-.6	-4.6	3.9	C3
Gironde.....	48.7	5.8	8.6	2.0		2.5	-2.0	4.5	C3
Hérault.....	29.7	5.9	-9.0	-3.6		1.9	-.9	2.7	C3
Ille-et-Vilaine.....	-6.6	-1.2	-2.5	-.9		.8	1.9	-1.1	B1
Indre.....	-12.9	-5.1	-.4	-.3		-4.0	-.5	-3.5	A1
Indre-et-Loire.....	8.1	2.4	7.8	4.6		3.1	-.1	3.1	C3
Isère.....	62.7	11.3	-7.1	-2.5		5.7	-.9	6.7	C3
Jura.....	-1.0	-.4	-7.8	-6.9		-2.5	.2	-2.6	A1
Lande.....	-8.8	-3.4	-4.2	-3.3		-3.2	.1	-3.4	A1
Loir-et-Cher.....	-11.4	-4.6	-1.2	-1.0		-2.9	.6	-3.4	A1
Loire.....	26.0	4.0	-12.2	-3.7		1.3	-.1	1.4	B2
Loire (Haute).....	-17.9	-6.9	-4.9	-3.9		-6.1	-.3	-5.9	A1
Loire-Inf.....	-2.5	-.4	8.6	2.6		1.0	.3	.6	B2
Loiret.....	5.8	1.7	1.8	1.1		1.3	-.2	1.5	B2
Lot.....	.1	.0	1.0	1.2		-5.6	-6.1	.4	B2
Lot-et-Garonne.....	17.7	7.3	9.2	7.4		3.5	-3.9	7.3	C3
Lozère.....	-9.6	-9.1	-3.8	-7.6		-6.6	2.0	-8.6	A1

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Migration and Population Change, Interwar Periods				
	ca. 1920-1930		ca. 1930-1940		Date	Average Annual Rates per 1,000 Population			Type <sup>4</sup>
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>		Pop. Chge.	Nat. Inc.	Net Migration	
FRANCE (cont.)									
Maine-et-Loire.....	.1	.0	.4	.2		.4	.3	.1	B2
Manche.....	-4.9	-1.1	-3.9	-1.8		2.0	3.4	-1.3	B1
Marne.....	29.7	7.6	-7.5	-3.6		7.5	3.6	3.9	C2
Marne (Haute).....	-8.8	-4.5	-1.2	-1.2		-3.6	-.2	-3.4	A1
Mayenne.....	-14.6	-5.7	-7.7	-6.1		-2.9	2.9	-5.8	A1
Meurthe-et-Moselle.....	56.3	10.3	-31.6	-10.8		8.9	5.6	3.3	C1
Meuse.....	-.1	-.1	-1.2	-1.1		3.0	3.4	-.4	B1
Morbihan.....	-40.0	-7.4	-5.8	-2.2		-.5	5.2	-5.7	A1
Moselle.....	42.3	6.6	-24.2	-7.0		11.1	9.1	2.1	B2
Nièvre.....	-5.7	-2.2	-.3	-.2		-5.3	-3.7	-1.5	B1
Nord.....	114.4	6.0	-47.8	-4.7		8.2	5.8	2.4	B2
Oise.....	9.8	2.5	-8.9	-4.4		2.5	2.3	.2	B2
Orne.....	-.5	-.2	-5.7	-4.2		-1.3	.2	-1.5	B1
Pas-de-Calais.....	90.4	8.2	-76.3	-12.8		11.6	10.4	1.2	B2
Puy-de-Dôme.....	19.6	4.0	-6.1	-2.5		-.6	-2.4	1.8	B2
Pyrénées (Basses).....	11.9	2.9	-11.6	-5.6		1.7	1.6	.1	B2
Pyrénées (Hautes).....	9.0	4.8	.8	.9		1.0	-2.5	3.5	C3
Pyrénées-Orient.....	20.2	8.8	-4.1	-3.5		4.7	-.1	4.7	C3
Rhin (Bas).....	-5.5	-.8	9.5	2.7		5.9	5.5	.4	B2
Rhin (Haut).....	18.9	3.8	-17.1	-6.7		5.3	5.0	.3	B2
Rhône.....	93.9	9.4	-12.9	-2.5		4.8	-.6	5.4	C3
Saône (Haute).....	-8.1	-3.6	-6.0	-5.5		-4.7	-.4	-4.2	A1
Saône-et-Loire.....	-20.2	-3.7	-11.3	-4.3		-3.6	.3	-3.9	A1
Sarthe.....	-11.5	-3.0	-1.1	-.6		-.1	2.1	-2.2	B1
Savoie.....	8.2	3.6	3.3	2.8		4.0	.7	3.3	C2
Savoie (Haute).....	14.2	5.8	7.0	5.5		6.5	.8	5.7	C2
Seine.....	467.1	10.0	12.6	.5		7.9	1.0	6.8	C2
Seine-Inf.....	-13.5	-1.5	-7.0	-1.5		2.6	4.1	-1.5	B1
Seine-et-Marne.....	60.2	15.9	4.3	2.1		10.6	-.8	11.3	C3
Seine-et-Oise.....	454.9	39.8	54.6	7.9		28.2	-1.0	29.2	C3
Sèvres (Deux).....	-8.9	-2.9	-4.2	-2.7		-.3	2.6	-2.8	A1
Somme.....	3.3	.7	-2.4	-1.0		2.1	2.0	.1	B2
Tarn.....	9.3	3.1	-3.4	-2.3		.5	-.8	1.3	B2
Tarn-et-Garonne.....	10.8	6.7	3.0	3.7		2.1	-3.6	5.7	C3
Var.....	61.4	17.6	24.0	12.4		14.0	-1.8	15.9	C3
Vaucluse.....	28.9	12.5	6.3	5.2		7.4	-2.6	10.1	C3
Vendée.....	-24.2	-6.2	-9.0	-4.6		-1.4	4.3	-5.7	A1
Vienne.....	-7.8	-2.5	2.1	1.3		.2	1.4	-1.2	B1
Vienne (Haute).....	-18.5	-5.4	-1.4	-.8		-3.3	.6	-3.9	A1
Vosges.....	-18.6	-4.9	-5.7	-3.0		-1.2	3.1	-4.3	A1
Yonne.....	14.2	5.2	1.9	1.4		-.3	-4.3	3.9	C3
GERMANY <sup>4</sup> .....	-234.1	-.5	501.9	.7	1925-33	5.5	6.0	-.5	
Preussen.....	-141.5	-.5	179.1	.7		5.6	6.1	-.5	
Ostpreussen.....	-94.8	-5.2	-7.5	-.5		4.2	9.4	-5.2	
Königsberg.....	-14.8	-2.0	36.7	6.1		6.1	8.1	-2.0	B1
Gumbinnen.....	-30.2	-7.0	-18.7	-5.7		1.4	8.4	-7.0	A2
Allenstein.....	-42.5	-9.7	-29.0	-8.7		2.8	12.5	-9.7	A2
Westpreussen.....	-7.3	-3.4	3.4	2.0		6.0	9.3	-3.4	A3

TABLE 8 (Cont.)

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Date	Migration and Population Change, Interwar Periods			Type <sup>4</sup>
	ca. 1920-1930		ca. 1930-1940			Average Annual Rates per 1,000 Population	Type <sup>4</sup>		
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>				Pop. Chge.	
<b>GERMANY (cont.)</b>									
<b>Preussen (cont.)</b>									
Stadt Berlin.....	277.6	8.4	78.7	3.1		6.6	-1.8	8.4	C3
Brandenburg.....	60.0	2.8	222.2	13.2		6.3	3.4	2.8	
Potsdam.....	85.0	7.8	223.0	24.3		10.6	2.8	7.8	C2
Frankfurt.....	-25.0	-2.4	-8	-1		1.8	4.2	-2.4	B1
Pommern.....	-71.6	-4.7	-2.0	-1		2.8	7.5	-4.7	
Stettin.....	-27.8	-2.9	39.0	5.5		3.8	6.7	-2.9	A3
Köslin.....	-43.8	-8.0	-20.7	-5.3		.9	8.9	-8.0	A2
Grenzm. Posen-Wpr.....	-19.2	-7.2	-20.2	-7.2		1.9	9.1	-7.2	A2
Niederschlesien.....	-77.3	-3.0	-	-		2.8	5.9	-3.0	
Breslau.....	-41.5	-2.7	-70.9	-6.1		3.4	6.1	-2.7	A3
Liegnitz.....	-35.7	-3.6	-7.8	-1.0		1.9	5.5	-3.6	A2
Oberschl. (Oppeln).....	-37.9	-3.3	-76.3	-4.9		9.0	12.3	-3.3	A3
Sachsen.....	-51.0	-1.9	80.9	3.9		4.0	5.9	-1.9	
Magdeburg.....	-34.3	-3.3	44.4	5.6		.6	3.9	-3.3	A2
Merseburg.....	-14.7	-1.3	22.2	2.5		6.3	7.6	-1.3	B1
Erfurt.....	-2.0	-4	14.3	3.8		5.7	6.1	-4	B1
Schleswig-Holstein.....	2.1	.2	91.8	10.3		5.7	5.5	.2	B2
Hannover.....	-33.1	-1.3	104.1	5.3		5.5	6.7	-1.3	
Hannover.....	6.4	.9	33.9	6.1		4.4	3.5	.9	B2
Hildesheim.....	-9.6	-2.0	18.2	5.0		3.6	5.7	-2.0	B1
Lüneburg.....	-8.5	-1.7	36.2	11.7		4.5	6.2	-1.7	B1
Stade.....	-10.8	-2.9	12.3	4.3		4.4	7.3	-2.9	A3
Osnabrück.....	-3.8	-1.1	14.2	4.9		10.5	11.6	-1.1	B1
Aurich.....	-6.8	-2.8	-10.8	-6.3		8.7	11.5	-2.8	A3
Westfalen.....	-117.6	-3.0	-117.0	-3.9		6.5	9.5	-3.0	
Münster.....	-51.2	-4.2	-71.9	-7.7		8.1	12.3	-4.2	A3
Minden.....	8.9	1.3	11.4	2.1		9.7	8.4	1.3	B2
Arnsberg.....	-75.3	-3.7	-56.4	-3.6		4.5	8.2	-3.7	A3
Hessen-Nassau.....	.3	0.0	-2.8	-2		5.4	5.4	0.0	
Kassel.....	-16.4	-1.8	9.0	1.3		5.6	7.4	-1.8	B1
Wiesbaden.....	16.7	1.5	-11.8	-1.4		5.3	3.8	1.5	B2
Rheinprovinz.....	22.7	.4	-105.4	-2.3		7.0	6.7	.4	
Koblenz.....	-6	-1	-23.5	-4.6		6.9	7.0	-1	B1
Düsseldorf.....	-21.9	-7	-70.1	-2.9		5.8	6.5	-7	B1
Köln.....	43.6	3.7	-3.3	-4		9.2	5.5	3.7	C1
Trier.....	-14.2	-3.7	7.2	2.5		5.8	9.5	-3.7	A3
Aachen.....	15.7	2.7	-15.7	-3.5		10.3	7.6	2.7	C1
Hohenzollerische L.....	-1.7	-3.0	-2.2	-5.2		2.0	4.9	-3.0	A2
<b>Bayern.....</b>									
Oberbayern.....	-118.4	-2.0	103.5	1.2		5.0	7.0	-2.0	
Niederbayern.....	33.7	2.4	124.8	11.3		6.6	4.2	2.4	B2
Oberpfalz.....	-44.1	-7.2	-38.0	-2.5		2.4	9.6	-7.2	A2
Oberfranken.....	-30.5	-5.9	-	-		4.5	10.5	-5.9	
Mittelfranken.....	-20.1	-3.3	-8.2	-7		4.7	8.0	-3.3	B1
Unterfranken.....	-4.2	-5	-	-		4.6	5.1	-5	
Schwaben.....	-18.1	-2.9	1.0	.2		5.5	8.4	-2.9	A3
Pfalz.....	-20.0	-2.9	11.8	2.2		2.6	5.5	-2.9	A2
	-15.1	-2.0	12.0	2.0		7.0	9.0	-2.0	B1
<b>GERMANY (cont.)</b>									
Sachsen.....	42.1	1.0	-79.0	-2.6					
Chemnitz.....	10.9	1.3	-35.7	-5.8					B2
Dresden-Bautzen.....	17.4	1.2	-6.8	-6					B2
Leipzig.....	21.4	2.0	-3.1	-4					B2
Zwickau.....	-7.5	-1.1	-33.4	-6.5					B1
<b>Württemberg.....</b>									
Neckarkreis.....	-7.6	-4	75.1	4.5					
Schwarzwaldkreis.....	28.9	3.6							C1
Jagatkreis.....	-8.2	-1.7							B1
Donaukreis.....	-17.4	-5.1							A2
	-10.9	-2.3							B1
<b>Baden.....</b>									
Konstanz.....	-27.8	-1.5	-13.7	-9					
Freiburg.....	-1.5	-6	5.3	2.4					B1
Karlsruhe.....	2.2	.4	-2	-1					B2
Mannheim.....	-18.4	-3.4	2.8	.7					A3
	-10.0	-1.7	-21.7	-4.8					B1
<b>Thüringen.....</b>									
Hessen.....	-28.0	-2.1	19.5	1.9					B1
Starkenburger.....	10.4	.9	-18.1	-2.1					
Oberhessen.....	4.2	.8							B2
Rheinhausen.....	-2.8	-1.0							B1
	9.0	2.7							C1
<b>Hamburg.....</b>									
Mecklenburg.....	50.8	5.4	-3.1	-3					C2
Oldenburg.....	-14.4	-2.3	53.7	10.6					B1
Oldenburg.....	-20.7	-4.6	42.1	13.3					
Lübeck.....	-16.9	-4.6							A3
Birkenfeld.....	-2.1	-5.4							A2
Braunschweig.....	-1.7	-3.8							A3
Bremen.....	-4.1	-1.0	56.2	17.3					B1
Anhalt.....	19.7	6.9	33.3	13.3					C2
Lippe.....	-1.7	-6	49.7	21.1					B1
Lübeck.....	1.4	1.1	3.3	3.0					B2
Schaumburg-Lippe.....	5.6	5.3							C2
Saarland.....	.2	.6	1.5	4.8					B2
	-20.6	-3.3	-7.7	-2.4					A3
<b>GREECE.....</b>									
Central Greece.....	505.2	12.2			1920-28	28.6	16.4	12.2	C1
Thessaly.....	311.0	30.8				45.2	14.4	30.8	C2
Ionian Islands.....	17.6	5.1				15.9	10.8	5.1	C1
Cyclades.....	-7.5	-4.9				9.9	14.8	-4.9	A3
Peloponnesus.....	-10.2	-10.9				7.9	18.8	-10.9	A2
Macedonia.....	-3.8	-5				16.2	16.7	-5	B1
Epirus.....	110.5	12.0				36.2	24.2	12.0	C1
	-15.5	-6.9				8.8	15.7	-6.9	A3

TABLE 8 (Cont.)

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Date	Migration and Population Change, Interwar Periods				Type <sup>3</sup>
	ca. 1920-1930		ca. 1930-1940			Average Annual Rates per 1,000 Population	Type <sup>3</sup>			
	Numbers (000's)	Av. Ann. Rates <sup>2</sup>	Numbers (000's)	Av. Ann. Rates <sup>2</sup>				Pop. Chge.	Nat. Inc.	
GREECE (cont.)										
Aegean Islands.....	15.1	7.2				22.7	15.5	7.2	C1	
Crete.....	-6.0	-2.2				14.7	16.9	-2.2	B2	
Western Thrace.....	93.9	49.5				49.4	-1.1	49.5	C3	
HUNGARY <sup>4</sup> .....	-73.9	-9	69.3	.8	1920-30	8.4	9.3	-9	B1	
Transdanubia.....	-127.0	-4.8	-42.9	-1.6		4.5	9.3	-4.8	A2	
Baranya.....	8.9	3.0	7.5	2.3		8.0	5.0	3.0	C1	
Fejér.....	-20.4	-7.6	2.4	.8		3.3	11.0	-7.6	A2	
Győr, Moson, etc....	-12.7	-6.3	-4.6	-2.2		5.5	11.8	-6.3	A2	
Esztergom.....			6.8	10.2						
Komárom.....	-9.3	-5.4	-1.9	-1.5		7.2	12.5	-5.4	A3	
Somogy.....	-7.8	-2.1	-8.7	-2.2		4.5	6.6	-2.1	B1	
Sopron.....	-14.8	-8.4	-8.2	-4.5		2.8	11.1	-8.4	A2	
Tolna.....	-14.8	-5.5	-4.7	-1.7		1.3	6.8	-5.5	A2	
Vas.....	-24.6	-9.1	-14.5	-5.2		2.6	11.7	-9.1	A2	
Veszprém.....	-14.0	-5.9	2.2	.9		4.7	10.6	-5.9	A2	
Zala.....	-17.5	-4.9	-19.2	-5.2		5.1	10.0	-4.9	A3	
Great Plain.....	98.6	2.1	151.8	3.0		10.7	8.6	2.1	B2	
Bács-Bodrog.....	7.6	5.9	2.4	1.7		12.9	7.0	5.9	C1	
Békés.....	-8.3	-2.6	-12.3	-3.6		6.1	8.7	-2.6	A3	
Bihar.....	-6.7	-4.0	-9.4	-5.2		8.6	12.6	-4.0	A3	
Csanád, Arad és Tor.	-11.1	-6.5	-8.1	-4.6		4.0	10.5	-6.5	A2	
Csongrád.....	-7.8	-2.3	-7.0	-2.0		5.1	7.4	-2.3	B1	
Hajdu.....	-5.3	-1.9	-6.9	-2.3		8.6	10.4	-1.9	A3	
Jász-Nagykun-Szolnok	-17.6	-4.4	-23.1	-5.5		6.3	10.7	-4.4	C1	
Pest-P.-S.-Kiskun..	92.0	6.9	92.6	6.0		16.5	9.6	6.9	C2	
Budapest.....	76.0	7.8	156.4	14.3		7.9	.1	7.8	A3	
Szabolcs és Ung....	-14.4	-3.9	-23.2	-5.6		15.1	19.0	-3.9	A3	
Szatmár.....	-5.8	-4.1	-9.8	-7.4		13.3	17.5	-4.1	B1	
North?.....	-45.4	-4.2	-39.5	-3.3		7.8	12.0	-4.2	A3	
Abaúj-Torna.....	-6.9	-7.8	-8.8	-9.5		6.3	14.1	-7.8	A2	
Bars és Hont.....			-3.4	-12.2						
Bereg és Ugocsa....			-2.4	-8.4						
Borsod.....			6.3	1.7						
Gömör és Kishont..	-5.0	-1.5	-9	-6.7		10.2	11.6	-1.5	B1	
Heves.....	-13.4	-4.4	-14.2	-4.4		6.2	10.6	-4.4	A3	
Nógrád.....	-9.6	-4.5	-9.2	-4.6		7.5	11.9	-4.5	A3	
Zemplén.....	-10.6	-7.5	-6.7	-4.4		7.2	14.7	-7.5	A2	
IRELAND.....	-166.8	-5.6			1926-36	-1	5.5	-5.6	A1	
Leinster.....	-4.3	-4				6.0	6.4	-4	B1	
Carlow.....	-1.7	-5.0				-1	5.0	-5.0	A2	
Dublin.....	34.3	6.3				14.9	8.6	6.3	C1	
Kildare.....	-4.2	-7.3				-2	7.1	-7.3	A1	
Kilkenny.....	-5.4	-7.7				-3.4	4.3	-7.7	A1	
Laoighis.....	-3.3	-6.4				-2.8	3.6	-6.4	A1	
IRELAND (cont.)										
Leinster (cont.)										
Longford.....	-3.6	-9.2								
Louth.....	-1.5	-2.4								
Meath.....	-3.8	-6.2								
Offaly.....	-3.8	-7.3								
Westmeath.....	-5.0	-8.9								
Wexford.....	-4.8	-5.0								
Wicklow.....	-1.5	-2.5								
Munster.....	-77.8	-8.1								
Clare.....	-9.4	-10.2								
Cork.....	-25.2	-7.0								
Kerry.....	-18.4	-12.7								
Limerick.....	-9.6	-6.8								
Tipperary.....	-10.3	-7.4								
Waterford.....	-5.0	-6.4								
Connacht.....	-54.8	-10.2								
Galway.....	-13.1	-7.8								
Leitrim.....	-6.3	-11.7								
Mayo.....	-20.8	-12.5								
Roscommon.....	-8.7	-10.8								
Sligo.....	-5.9	-8.5								
Ulster (part of).....	-29.9	-10.3								
Cavan.....	-8.3	-10.4								
Donegal.....	-15.8	-10.7								
Monaghan.....	-5.8	-9.1								
ITALY.....	-1,040.3	-2.8	-301.9	-1.4	1921-36	8.5	10.8	-2.3	B1	
Piemonte.....	8.5	.3	4.2	.2						
Liguria.....	49.1	3.8	27.2	3.7						
Lombardia.....	26.0	.5	50.7	1.8						
Venezia Trid.....	-22.2	-3.6	12.4	3.7						
Veneto.....	-501.8	-13.2	-118.0	-5.6						
Venezia G. e Z.....	7.2	.8	4.1	.8						
Emilia.....	-127.7	-4.4	-24.7	-1.5						
Toscana.....	-100.3	-3.8	-11.9	-.8						
Marche.....	-78.7	-7.1	-24.4	-3.9						
Umbria.....	-33.9	-5.4	-4.8	-1.4						
Lazio.....	218.2	10.7	145.8	11.5						
Abruzzi e Molise....	-56.8	-4.2	-30.8	-3.9						
Campania.....	-92.5	-3.0	-57.9	-3.2						
Puglie.....	-61.6	-2.8	-35.7	-2.8						
Lucania.....	-22.6	-5.0	-10.4	-4.0						
Calabrie.....	-32.0	-2.2	-69.6	-8.2						
Sicilia.....	-211.7	-6.0	-156.0	-7.9						
Sardegna.....	-7.5	-.9	-2.6	-.5						

TABLE 8 (Cont.)

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Migration and Population Change, Interwar Periods				
	ca. 1920-1930		ca. 1930-1940		Date	Average Annual Rates per 1,000 Population			Type <sup>4</sup>
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>		Pop. Chge.	Nat. Inc.	Net Migration	
LATVIA.....	193.1	11.4	4.5	.5	1925-35	5.6	5.5	.3	B2
Riga (City).....	184.6	67.5	6.8	3.5		13.1	.5	12.6	C2
Vidzeme.....	-9.2	-2.3	-1.8	-.9		.3	1.8	-1.4	B1
Kurzeme.....	5.0	1.8	.7	.5		2.1	3.7	-1.6	B1
Zemgale.....	46.8	18.8	6.7	4.6		8.1	4.2	4.0	C1
Latgale.....	-34.2	-6.8	-7.9	-2.8		5.0	13.3	-8.3	A2
LITHUANIA.....	-30.8	-2.0	-13.9	-.9					
LUXEMBURG.....	21.8	8.6	-9.7	-6.5	1921-30	15.3	6.7	8.6	C2
NETHERLANDS.....	12.5	.2	-11.8	-0.2	1920-39	13.1	13.1	.0	B2
Noordbrabant.....	14.8	1.8	-15.4	-1.8		17.7	17.7	-.0	B2
Gelderland.....	-13.7	-1.8	-3.2	-0.4		12.3	13.3	-1.1	B1
Zuidholland.....	32.2	1.8	12.1	0.6		13.3	12.1	1.2	B2
Noordholland.....	53.5	3.8	50.7	3.5		13.8	10.1	3.7	C1
Zeeland.....	-25.5	-10.4	-12.3	-5.5		2.0	10.0	-7.9	A2
Utrecht.....	12.8	3.4	27.6	6.9		17.6	12.4	5.2	C1
Friesland.....	-33.7	-8.6	-16.8	-4.5		5.4	11.9	-6.5	A2
Overijssel.....	8.7	1.8	-8.8	-1.8		14.2	14.2	-.0	B2
Groningen.....	-24.7	-6.5	-8.3	-2.3		7.7	12.1	-4.4	A3
Drenthe.....	-28.8	-13.3	-7.4	-3.5		8.5	16.8	-8.3	A3
Limburg.....	17.0	3.4	-30.8	-5.9		16.3	17.7	-1.3	B1
NORWAY.....	-80.6	-2.9			1921-30	5.9	8.9	-2.9	A3
Østfold.....	-8.4	-5.1				4.1	9.3	-5.1	A2
Akershus.....	32.6	15.6				27.3	11.7	15.6	C2
Oslo.....	-6.9	-2.7				-2.2	.4	-2.7	A1
Hedmark.....	-11.2	-7.3				5.4	12.6	-7.3	B2
Opland.....	-6.7	-5.0				6.4	11.4	-5.0	A3
Buskerud.....	-7.4	-5.3				4.1	9.3	-5.3	A2
Vestfold.....	-.0	-.0				7.7	7.7	-.0	B1
Telemark.....	-8.5	-6.7				1.9	8.6	-6.7	A2
Aust-Agder.....	-4.7	-6.4				-1.3	5.1	-6.4	A1
Vest-Agder.....	-6.5	-7.9				-2.1	5.8	-7.9	A1
Rogaland.....	-10.5	-6.2				3.9	10.1	-6.2	A2
Hordaland.....	-7.1	-4.4				6.2	10.6	-4.4	A2
Bergen.....	-.2	-.3				5.2	5.5	-.3	B1
Sogn og Fjordane.....	-5.4	-5.9				1.8	7.7	-5.9	A2
Møre og Romsdal.....	-9.3	-5.7				3.4	9.1	-5.7	A2
Sør-Trøndelag.....	-6.3	-3.7				4.7	8.4	-3.7	A3
Nord-Trøndelag.....	-1.9	-2.1				7.3	9.3	-2.1	B1
Nordland.....	-9.0	-5.0				7.2	12.1	-5.0	A3
Troms.....	-5.1	-5.4				7.0	12.4	-5.4	A3
Finnmark.....	1.9	3.8				18.6	14.8	3.8	C1
POLAND.....	50.0	.2			1921-31	16.7	16.5	.2	B2
M. st. Warszawa.....	178.3	16.6				22.5	5.9	16.6	C2
Warszawa.....	12.0	.5				17.7	17.2	.5	B2
Łódź.....	16.3	.7				15.3	14.6	.7	B2
Kielce.....	-87.5	-3.1				14.4	17.5	-3.1	A3
Lublin.....	-34.8	-1.5				16.5	18.0	-1.5	B1
Białystok.....	82.1	5.5				23.2	17.7	5.5	C1
Wilno.....	64.4	5.6				23.3	17.8	5.6	C1
Nowogródek.....	36.9	3.9				25.7	21.8	3.9	C1
Polesie.....	144.9	15.2				40.4	25.2	15.2	C1
Wolyń.....	115.9	6.2				27.6	21.3	6.2	C1
Poznań.....	-154.5	-7.4				7.0	14.4	-7.4	A2
Pomorze.....	-21.1	-2.1				14.6	16.7	-2.1	B1
Śląsk.....	-46.6	-3.8				14.1	17.9	-3.8	A3
Kraków.....	-18.0	-.8				13.9	14.8	-.8	B1
Lwów.....	-85.3	-2.8				11.3	14.1	-2.8	A3
Stanisławów.....	15.3	1.1				15.3	14.2	1.1	B2
Tarnopol.....	-45.5	-2.9				10.7	13.6	-2.9	A3
PORTUGAL.....	-9.3	-.1	64.		1920-30	12.3	12.5	-.1	B1
Continent.....	-6.3	-.1				12.3	12.4	-.1	B1
Aveiro.....	-17.7	-4.9				10.3	15.2	-4.9	A3
Beja.....	6.9	3.1				18.1	14.9	3.1	C1
Braga.....	-17.9	-4.5				9.8	14.3	-4.5	A3
Bragança.....	-10.5	-5.9				8.4	14.3	-5.9	A3
Castelo Branco.....	-10.9	-4.3				10.5	14.8	-4.3	A3
Coimbra.....	-7.4	-2.0				9.4	11.4	-2.0	B1
Évora.....	2.9	1.7				16.5	14.8	1.7	B2
Faro.....	-4.7	-1.6				11.4	13.1	-1.6	B1
Guarda.....	-19.1	-7.3				4.3	11.6	-7.3	A2
Leiria.....	-11.1	-3.7				11.9	15.7	-3.7	A3
Lisboa & Setúbal.....	138.0	13.3				19.9	6.6	13.3	C2
Portalegre.....	-1.1	-.7				12.1	12.8	-.7	B1
Pôrto.....	10.3	1.4				14.3	12.9	1.4	B2
Santarém.....	-6.2	-1.8				13.1	14.8	-1.8	B1
Viana do Castelo.....	-13.0	-3.6				6.1	11.7	-5.6	A3
Vila Real.....	-16.0	-6.5				7.6	14.1	-6.5	A3
Viseu.....	-28.8	-6.9				6.4	13.2	-6.9	A2
Islands.....	-3.1	-.7				12.4	13.1	-.7	B1
Angra do Heroísmo.....	-1.2	-1.7				4.7	6.4	-1.7	B1
Horta.....	.3	.7				5.7	5.0	.7	B2
Ponta Delgada.....	.4	.3				12.7	12.3	.3	B2
Funchal.....	-2.7	-1.4				16.7	18.1	-1.4	B1
RUMANIA <sup>10</sup> .....					1930-41				
Oltenia.....			-37.6	-2.3		9.9	12.2	-2.3	B1
Muntenia.....			229.0	5.0		18.7	13.7	5.0	C1

TABLE 8 (Cont.)

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Migration and Population Change, Interwar Periods				
	ca. 1920-1930		ca. 1930-1940		Date	Average Annual Rates per 1,000 Population			Type <sup>4</sup>
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>		Pop. Chge.	Nat. Inc.	Net Migration	
<b>RUMANIA<sup>10</sup> (cont.)</b>									
Dobrogea.....			-118.4	-14.0		1.9	15.9	-14.0	A2
Moldova.....			-92.7	-3.5		12.0	15.5	-3.5	A3
Banat.....			17.1	1.8		1.5	-2	1.8	B2
Crisana și Maramures Transilvania.....			-79.8	-1.6		6.9	8.5	-1.6	B1
Basarabia <sup>10</sup> .....			—	—		—	—	—	—
Bucovina <sup>10</sup> .....			—	—		—	—	—	—
<b>SPAIN.....</b>	-19.8	-.1			1920-30	10.1	10.2	-.1	B1
Álava.....	-5.2	-5.1				5.4	10.6	-5.1	A3
Albacete.....	-3.1	-1.0				13.1	14.1	-1.0	B1
Alicante.....	-11.1	-2.1				6.4	8.5	-2.1	B1
Almería.....	-69.4	-19.8				-4.7	15.1	-19.8	A1
Avila.....	-14.9	-6.9				5.6	12.5	-6.9	A2
Badajoz.....	-15.8	-2.3				8.6	10.9	-2.3	B1
Baleares.....	4.9	1.4				7.6	6.2	1.4	B2
Barcelona.....	376.1	23.9				28.7	4.8	23.9	C2
Burgos.....	-22.7	-6.6				5.4	12.0	-6.6	A2
Cáceres.....	-12.7	-3.0				9.2	12.2	-3.0	A3
Cádiz.....	-59.4	-11.6				-9	10.7	-11.6	A1
Castellón de la Plana.....	-14.1	-4.6				.6	5.2	-4.6	A2
Ciudad Real.....	-1.4	-.3				14.0	14.3	-.3	B1
Córdoba.....	21.2	3.4				16.8	13.3	3.4	C1
Coruña (La).....	-22.9	-3.1				8.0	11.1	-3.1	A3
Cuenca.....	-14.3	-4.8				9.4	14.3	-4.8	A3
Gerona.....	-15.0	-4.6				-.0	4.6	-4.6	A2
Granada.....	-15.2	-2.5				11.5	14.0	-2.5	A3
Guadalajara.....	-18.7	-9.2				1.3	10.5	-9.2	A2
Guipúzcoa.....	12.7	4.5				15.6	11.1	4.5	C1
Huelva.....	-.3	-.1				7.2	7.2	-.1	B1
Huesca.....	-24.0	-9.7				-3.1	6.7	-9.7	A1
Jaén.....	-8.1	-1.3				13.0	14.2	-1.3	B1
León.....	-26.0	-6.1				6.9	13.0	-6.1	A3
Lérida.....	-20.2	-6.4				-.1	6.3	-6.4	A1
Logroño.....	-11.7	-5.9				5.5	11.3	-5.9	A2
Lugo.....	-36.8	-7.8				-.2	7.6	-7.8	A1
Madrid.....	219.7	17.9				25.8	7.9	17.9	C2
Málaga.....	-5.9	-1.0				10.1	11.1	-1.0	B1
Murcia.....	-76.9	-12.0				1.1	13.0	-12.0	A2
Navarra.....	-21.2	-6.3				4.7	11.0	-6.3	A2
Orense.....	-20.3	-4.8				3.2	8.1	-4.8	A2
Oviedo.....	-33.0	-4.3				6.3	10.6	-4.3	A3
Palencia.....	-9.7	-4.9				7.9	12.8	-4.9	A3
Palmas (Las).....	16.5	7.2				19.5	12.3	7.2	C1
Pontevedra.....	-19.5	-3.5				6.3	9.8	-3.5	A3
Salamanca.....	-19.8	-6.0				5.3	11.3	-6.0	A2
Santa Cruz de Tenerife.....	19.4	7.0				19.0	12.0	7.0	C1
Santander.....	-12.2	-3.5				10.5	14.1	-3.5	A3
Segovia.....	-17.1	-10.0				4.1	14.2	-10.0	A2
<b>SPAIN (cont.)</b>									
Sevilla.....	31.8	4.2				13.5	9.2	4.2	C1
Soria.....	-12.8	-8.3				3.0	11.3	-8.3	A2
Tarragona.....	-18.9	-5.3				-1.3	4.1	-5.3	A1
Teruel.....	-24.1	-9.5				.3	9.8	-9.5	A2
Toledo.....	-19.8	-4.2				10.0	14.2	-4.2	A3
Valencia.....	46.1	4.7				11.8	7.1	4.7	C1
Valladolid.....	-11.3	-3.9				7.1	11.0	-3.9	A3
Vizcaya.....	18.3	4.1				16.9	12.8	4.1	C1
Zamora.....	-10.8	-3.9				5.1	9.0	-3.9	A3
Zaragoza.....	-10.3	-2.0				8.0	10.0	-2.0	B1
<b>SWEDEN.....</b>	-91.3	-1.5	55.4	.9	1920-40	3.8	4.1	-.3	B1
Stockholms (stad).....	79.9	17.3	85.1	15.6		17.0	.5	16.4	C2
Stockholms (län).....	10.4	4.1	17.0	6.2		8.5	3.4	5.1	C2
Uppsala.....	-5.6	-4.1	-2.9	-2.1		.5	3.5	-3.0	A2
Södermanland.....	-9.9	-5.2	.7	.4		.5	3.0	-2.4	B1
Östergötland.....	-11.7	-3.8	-.1	-.0		1.8	3.8	-1.9	B1
Jönköping.....	-8.2	-3.6	3.8	1.6		3.0	4.0	-1.0	B1
Kronoberg.....	-10.7	-6.8	-6.4	-4.1		-2.3	3.1	-5.5	A1
Kalmar.....	-9.7	-4.2	-9.1	-4.0		.6	3.5	-4.1	A1
Gotland.....	-.4	-.8	-.6	-1.0		2.3	3.2	-.9	B1
Blekinge.....	-10.8	-7.4	-5.7	-3.9		-.7	4.9	-5.7	A1
Kristianstad.....	-11.4	-4.7	-7.4	-3.0		1.5	5.3	-3.8	A2
Malmöhus.....	-6.0	-1.2	4.3	.8		4.2	4.4	-.2	B1
Halland.....	-6.0	-4.0	-2.7	-1.8		1.0	3.9	-2.9	A2
Göteborg o. Bohus.....	7.1	1.6	15.9	3.4		6.7	4.3	2.5	B2
Älvsborg.....	-.8	-.3	8.5	2.7		4.6	3.4	1.2	B2
Skaraborg.....	-10.6	-4.4	-5.8	-2.4		-.9	2.5	-3.4	A1
Värmland.....	-9.4	-3.5	-6.1	-2.3		.0	2.9	-2.9	A2
Örebro.....	-8.3	-3.8	6.8	3.1		1.5	1.9	-.4	B1
Västmanland.....	-14.6	-8.8	4.2	2.5		.0	3.2	-3.1	A2
Kopparberg.....	-16.9	-6.7	-3.9	-1.6		-1.1	3.0	-4.2	A1
Gävleborg.....	-7.4	-2.7	-12.9	-4.7		1.1	4.8	-3.7	A2
Västernorrland.....	-7.8	-2.9	-14.4	-5.2		1.9	5.9	-4.0	A2
Jämtland.....	-9.9	-7.4	-2.3	-1.7		1.9	6.4	-4.5	A2
Västerbotten.....	-3.1	-1.6	-3.3	-1.6		9.4	11.0	-1.6	B1
Norrbottn.....	-9.5	-5.0	-7.4	-3.5		8.3	12.6	-4.3	A3
<b>SWITZERLAND<sup>11</sup>.....</b>	-59.0	-1.5			1920-30	4.7	6.2	-1.5	B1
Zürich, etc.....	44.2	5.8				10.5	4.7	5.8	C2
Bern.....	-38.8	-5.7				2.1	7.8	-5.7	A2
Luzern, etc.....	-12.2	-3.6				5.9	9.5	-3.6	A3
Fribourg.....	-17.1	-12.0				.1	12.1	-12.0	A2
Solothurn, etc.....	9.2	1.5				9.1	7.7	1.5	B2
Appenzell A.-Rh., etc..	-38.8	-9.9				-3.7	6.2	-9.9	A1
Graubünden.....	-2.1	-1.7				5.3	7.0	-1.7	B1
Ticino.....	3.2	2.0				4.5	2.4	2.0	B2
Vaud, etc.....	-.9	-.1				1.2	1.4	-.1	B1
Valais.....	-6.9	-5.2				6.2	11.3	-5.2	A3



TABLE 8 (Cont.)

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Migration and Population Change, Interwar Periods				
	ca. 1920-1930		ca. 1930-1940		Date	Average Annual Rates per 1,000 Population			Type <sup>4</sup>
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>		Pop. Chge.	Nat. Inc.	Net Migration	
<b>UNITED KINGDOM</b>									
England and Wales...	-157.3	- .4			1921-31	5.4	5.8	- .4	B1
South East.....	632.8	4.9				10.2	5.3	4.9	C1
Bedfordshire.....	6.0	2.8				6.8	4.1	2.8	C1
Berkshire.....	8.3	2.7				7.0	4.3	2.7	C1
Buckinghamshire.....	26.6	10.5				15.3	4.8	10.5	C2
Essex.....	191.7	11.9				18.9	7.0	11.9	C2
Hertfordshire.....	53.8	14.6				19.6	5.0	14.6	C2
Kent.....	60.5	5.2				10.3	5.1	5.2	C2
London.....	-359.6	-8.1				-2.7	5.4	-8.1	A1
Middlesex.....	301.3	20.7				26.8	6.1	20.7	C2
Oxfordshire.....	14.7	7.4				11.2	3.8	7.4	C2
Southampton.....	48.7	5.1				11.3	6.2	5.1	C1
Surrey.....	215.1	20.4				24.9	4.5	20.4	C2
Sussex, East.....	36.9	7.1				8.1	1.0	7.1	C2
Sussex, West.....	28.7	14.2				16.8	2.6	14.2	C2
Wight, Isle of.....	.1	.2				1.1	1.0	.2	B2
North I.....	-206.7	-9.2				.5	9.7	-9.2	A2
Durham.....	-163.1	-10.9				-.4	10.5	-10.9	A1
Northumberland.....	-43.5	-5.8				2.3	8.1	-5.8	A2
North II.....	-36.0	-2.9				4.0	6.9	-2.9	A3
Cumberland.....	-23.3	-8.8				-2.5	6.3	-8.8	A1
Westmorland.....	1.1	1.7				4.9	3.3	1.7	B2
Yorkshire, E. R.....	-6.2	-1.3				6.0	7.3	-1.3	B1
Yorkshire, N. R.....	-7.5	-1.6				5.7	7.4	-1.6	B1
North III.....	-43.0	-1.3				4.1	5.4	-1.3	B1
Yorkshire, W. R.....	-38.8	-1.2				4.2	5.3	-1.2	B1
York, C. B.....	-4.2	-5.0				1.3	6.3	-5.0	A2
North IV.....	-154.6	-2.5				2.1	4.6	-2.5	A2
Cheshire.....	11.7	1.1				5.7	4.6	1.1	B2
Lancashire.....	-166.3	-3.3				1.3	4.6	-3.3	A2
Midland I.....	-72.4	-1.6				5.3	6.9	-1.6	B1
Gloucestershire.....	-5.7	-.7				3.8	4.5	-.7	B1
Herefordshire.....	-5.3	-4.7				-.3	4.4	-4.7	A1
Shropshire.....	-11.2	-4.6				1.1	5.7	-4.6	A2
Staffordshire.....	-68.8	-4.9				4.0	8.9	-4.9	A2
Warwickshire.....	20.6	1.4				8.4	7.0	1.4	B2
Worcestershire.....	-1.9	-.5				5.3	5.8	-.5	B1
Midland II.....	2.5	.1				6.8	6.7	.1	B2
Derbyshire.....	-22.0	-3.0				5.0	8.0	-3.0	A3
Leicestershire.....	10.2	2.0				8.0	6.1	2.0	B2
Northamptonshire.....	-6.8	-2.2				1.6	3.8	-2.2	B1
Nottinghamshire.....	18.2	2.7				9.7	7.0	2.7	C1
Peterborough, Soke of.....	2.9	5.8				10.4	4.6	5.8	C2

Country and District <sup>1</sup>	Balance of All Migration, Intercensal Periods <sup>2</sup>				Migration and Population Change, Interwar Periods				
	ca. 1920-1930		ca. 1930-1940		Date	Average Annual Rates per 1,000 Population			Type <sup>4</sup>
	Numbers (000's)	Av. Ann. Rates <sup>3</sup>	Numbers (000's)	Av. Ann. Rates <sup>3</sup>		Pop. Chge.	Nat. Inc.	Net Migration	
<b>UNITED KINGDOM</b>									
(cont.)									
England and Wales (cont.)									
East.....	-40.7	-2.3				3.3	5.6	-2.3	B1
Cambridgeshire.....	7.7	5.7				8.4	2.7	5.7	C2
Ely, Isle of.....	-1.5	-2.0				5.5	7.5	-2.0	B1
Huntingdonshire.....	-1.2	-2.2				2.7	5.0	-2.2	B1
Lincolnshire									
Pt. of Holland.....	-1.4	-1.6				6.9	8.5	-1.6	B1
Pt. of Kesteven.....	-3.7	-3.4				2.5	5.9	-3.4	A2
Pt. of Lindsey.....	-9.7	-2.3				4.4	6.7	-2.3	B1
Norfolk.....	-14.2	-2.9				2.0	4.9	-2.9	A2
Rutlandshire.....	-.7	-3.6				-.	3.6	-3.6	A2
Suffolk, East.....	-8.8	-3.0				2.9	5.9	-3.0	A2
Suffolk, West.....	-7.2	-6.8				-3.5	3.2	-6.8	A1
South West.....	19.6	1.0				4.3	3.3	1.0	B2
Cornwall.....	-8.5	-2.7				-.4	2.3	-2.7	A1
Devonshire.....	15.6	2.2				5.2	3.0	2.2	B2
Dorsetshire.....	9.6	4.2				8.5	4.3	4.2	C1
Somersetshire.....	6.6	1.4				4.2	2.8	1.4	B2
Wiltshire.....	-3.6	-1.2				4.2	5.4	-1.2	B1
Wales I.....	-236.8	-12.2				-3.5	8.7	-12.2	A1
Brecknockshire.....	-7.3	-12.4				-6.4	6.0	-12.4	A1
Carmarthenshire.....	-8.9	-5.0				1.3	6.4	-5.0	A2
Glamorganshire.....	-155.0	-12.4				-3.6	8.8	-12.4	A1
Monmouthshire.....	-65.6	-14.7				-4.9	9.8	-14.7	A1
Wales II.....	-22.0	-3.2				-.	3.2	-3.2	A2
Anglesey.....	-3.3	-6.6				-4.6	2.0	-6.6	A1
Caernarvonshire.....	-.3	-.2				.1	.3	-.2	B1
Cardiganshire.....	-1.4	-2.4				-4.5	-2.1	-2.4	B1
Denbighshire.....	-5.2	-3.3				1.7	5.0	-3.3	A2
Flintshire.....	3.7	3.4				9.5	6.1	3.4	C1
Merionethshire.....	.3	.8				1.9	1.1	.8	B2
Montgomeryshire.....	-4.9	-9.9				-5.7	4.2	-9.9	A1
Pembrokeshire.....	-9.2	-10.4				-5.8	4.6	-10.4	A1
Radnorshire.....	-1.7	-7.8				-3.0	4.8	-7.8	A1
Northern Ireland.....	-57.7	-4.2			1926-37	1.7	5.9	-4.2	A2
Scotland <sup>1a</sup> .....	-391.9	-8.2			1921-31	-.8	7.4	-8.2	A1
Northern.....	-97.1	-8.3				-5.1	4.6	-9.7	A1
East Central.....	-75.2	-6.8				.4	7.2	-6.8	A2
West Central.....	-205.4	-9.0				.8	9.2	-8.4	A2
Southern.....	-14.2	-5.7				-1.5	3.9	-5.4	A1

<sup>1</sup>The data relate to the internal territorial divisions existing at the close of each intercensal period covered.

<sup>2</sup>Actual intercensal periods employed were as follows: Austria, 1923-1934 & 1934-1939; Belgium, 1920-1930 & 1930-1939; Bulgaria, 1926-1934; Czechoslovakia, 1921-1930 & 1930-1939; Denmark, 1925-1930 & 1930-1935; Estonia, 1922-1934; Finland, 1920-1930 & 1930-1938; France, 1921-1931 & 1931-1936; Germany, 1925-1933 & 1933-1939; Greece, 1921-1928; Hungary, 1920-1930 & 1930-1941; Ireland, 1926-1936; Italy, 1921-1931 & 1931-1936; Latvia, 1920-1930 & 1930-1935; Lithuania, 1923-1929 & 1934-1939; Luxemburg, 1921-1930 & 1930-1935; Netherlands, 1920-1930 & 1930-1939; Norway, 1920-1930; Poland, 1921-1931; Portugal, 1920-1930 & 1930-1940; Rumania, 1930-1941; Spain, 1920-1930 & 1930-1940; Sweden, 1920-1930 & 1931-1940; Switzerland, 1920-1930; United Kingdom: England & Wales, 1921-1931; Northern Ireland, 1926-1937; Scotland, 1921-1931.

<sup>3</sup>Per 1,000 average population.

<sup>4</sup>*Areas of Dispersion:*

A1 Depopulation through migration (out-migration with natural decrease or exceeding natural increase)

A2 Out-migration more than half but less than total natural increase

A3 Out-migration less than half the natural increase

*Areas of Small Migration Balance (less than 2.5 per 1,000 population):*

B1 Small out-migration

B2 Small in-migration

*Areas of Absorption:*

C1 In-migration less than natural increase

C2 In-migration more than natural increase

C3 Repopulation through migration (in-migration with natural decrease)

<sup>5</sup>Austria: The data for 1933-1939 relate to "Ostmark," which included neighboring areas of Czechoslovakia aggregated with Austria proper in the German census of 1939.

<sup>6</sup>Czechoslovakia: In the period 1930-1939 the Sudeten areas lost about 315 thousand by migration, while there was a gain in the remainder of Bohemia-Moravia and a loss in Slovakia.

<sup>7</sup>Finland: Data for 1920-1930 refer to the present population; those for 1930-1938 refer to the legal population.

<sup>8</sup>Germany: Figures for 1933-1939 refer to Germany proper without the annexations of 1938 and 1939 (e.g., without Austria and the Sudetenland).

<sup>9</sup>Hungary: Districts include autonomous cities located within their boundaries. Data for 1930-1941 are for Trianon Hungary, but according to internal administrative divisions of 1941.

<sup>10</sup>Rumania: No figures available for Bessarabia and Bucovina and hence for total country.

<sup>11</sup>Switzerland: For the grouping of cantons used see footnotes to the table of Appendix II.

<sup>12</sup>Scotland: Migration balances (Column 2) are official estimates taking account of persons temporarily in holiday resorts at the time of the censuses. The net migration rates of Column 9 are obtained by differencing natural increase and total population change.

## APPENDIX IV

### SELECTED BIBLIOGRAPHY OF OFFICIAL CENSUS AND VITAL STATISTICS FOR EUROPE IN THE INTERWAR PERIOD

THE following listing, arranged in alphabetical order by country, presents the major sources used for the compilation and computation of data presented in Appendices I-III. No attempt is made to give complete enumeration of all demographic publications of the countries concerned. Thus publications covering only current and short-run vital statistics have been omitted, as well as those commonly issued by the statistical offices and health services giving detailed figures on causes of death. Census publications presenting only preliminary figures or detailed listings of localities have been excluded unless these are printed as integral parts of the definitive census series. Russian materials are not entered; these are covered in a full bibliography of Russian demographic publications in the previous volume in this series by Frank Lorimer on *The Population of the Soviet Union*.

The citations are given in the languages of the publications concerned except for those countries using non-Roman alphabets. Official French translations have been added for the less widely known tongues. In several countries the titles of the official agencies publishing demographic materials were changed in the course of the interwar period. In such cases the title is given as it existed at the end of the period. There were also a number of irregularities in the publication dates of what were nominally annual reviews of vital statistics, but these have been ignored in the interests of simplicity.

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APPENDIX V  
IDENTIFICATION MAPS



EUROPE,  
WESTERN SECTION

N O R T H  
S E A

ENGLISH CHANNEL

BAY OF  
BISCAY

LICURIAN SEA

M E D I T E R R A N E A N SEA

FIGURE 63. Map key: Western section of Europe

# EUROPE, EASTERN SECTION



FIGURE 54. Map key: Eastern section of Europe

# EUROPE, NORTHERN SECTION



FIGURE 55. Map key: Northern section of Europe

# EUROPE, SOVIET UNION



FIGURE 56. Map key: Soviet Union in Europe.

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