

0007008 83500

#E603

# POPULATION PROBLEMS

IN THE UNITED STATES AND CANADA

An outgrowth of papers presented at the Eighty-Sixth Annual Meeting of the American Statistical Association, December, 1924

EDITED BY

# LOUIS I. DUBLIN

Statistician, Metropolitan Life Insurance Company
President, American Statistical Association, 1924

人区间边



BOSTON AND NEW YORK
HOUGHTON MIFFLIN COMPANY
The Riverside Press Cambridge

# copyright, 1926, by the pollar foundation for economic research all rights reserved

The Riverside Press

CAMBRIDGE - MASSACHUSETTS

PRINTED IN THE U.S.A.

## POLLAK PUBLICATIONS

#### NUMBER ONE

#### THE MAKING OF INDEX NUMBERS

By IRVING FISHER, Professor of Economics, Yale University. xxxiii + 526 pages, 120 illustrations. Third edition, Revised, 1927.

#### NUMBER TWO MONEY

By WILLIAM TRUFANT FOSTER, Director of the Pollak Foundation, and WADDILL CATCHINGS, of Goldman, Sachs and Company. xi + 409 pages. Third edition, Revised, 1927.

#### NUMBER THREE COSTS AND PROFITS

By Hudson Bridge Hastings, Professor of Administrative Engineering, Yale University. xi + 168 pages.

#### NUMBER FOUR

#### CYCLES OF UNEMPLOYMENT

By William A. Berridge, Assistant Professor of Economics, Brown University. xv + 88 pages.

#### NUMBER FIVE

#### POPULATION PROBLEMS

By L. I. Dublin, of the Metropolitan Life Insurance Company, and others. xiii + 318 pages.

#### NUMBER SIX

#### THE PROBLEM OF BUSINESS FORECASTING

By Warren M. Persons, Professor of Economics, Harvard University, and others. xiii + 317 pages, 55 illustrations.

#### NUMBER SEVEN

#### SOCIAL CONSEQUENCES OF BUSINESS CYCLES

By Maurice B. Hexter, Director of Federated Jewish Charities, Boston. xxiii + 206 pages, 34 illustrations.

#### NUMBER EIGHT PROFITS

By WILLIAM TRUFANT FOSTER and WADDILL CATCHINGS. xxii + 465 pages, 61 illustrations.

#### NUMBER NINE

#### REAL WAGES IN THE UNITED STATES

By PAUL H. DOUGLAS, Associate Professor of Industrial Relations, University of Chicago.

#### NUMBER TEN

#### BUSINESS WITHOUT A BUYER

By WILLIAM TRUFANT FOSTER and WADDILL CATCHINGS.

# POLLAK FOUNDATION FOR ECONOMIC RESEARCH

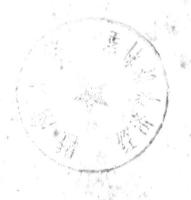
NEWTON 58, MASSACHUSETTS

# PUBLICATIONS OF THE POLLAK FOUNDATION FOR ECONOMIC RESEARCH



NUMBER FIVE

POPULATION PROBLEMS IN THE UNITED STATES AND CANADA



#### PREFACE

WITH all its open spaces, America has a particularly interesting and perplexing population problem which insistently bids for attention. The unparalleled growth in numbers, the intermixture of races, the rapid depletion of natural resources, the declining fertility in the cities, the urban migration, and the more recent curtailment of immigration, all make America a remarkable laboratory for the study of population. Here are combined unrivaled opportunities for investigation and unlimited possibilities for turning theories into practical channels. The subject, however, has not received the attention that it deserves from American demographers; only scattered and minor details have been explored. It was for these reasons that the American Statistical Association. at its annual meeting in 1924, devoted its entire attention to population problems. This book is an outgrowth of that symposium.

Such a volume has definite advantages. To the authority of the individual contributions it adds the freshness of varied opinion and point of view. This gain probably outweighs any loss suffered through lack of uniformity of style and of aim. No single person could, in any case, write a completely rounded work on population in the United States. There is greater hope of success through coöperation. The editor has, therefore, brought together those scientific men whom he considers qualified to make authentic statements. He has endeavored, without bias, to present all sides of the question, making no attempt to reconcile differences of opinion. There is

still too much uncertainty to justify dogmatism. He takes no responsibility for the views presented; the reputation and the high standing of the individual authors assure the reliability of their data.

Only those topics which are now arousing most public interest were selected. The recent changes in our immigration laws, for example, focused attention upon the racial composition of our population, the innate ability of the various peoples, and their contributions to American life. The War and the many changes in industrial organization growing out of it emphasized anew the problems of our labor supply, including the employment of women and children, the standard of living, the rate of wages, the effect of health activities on the constitution of future populations, the exploitation of our natural resources and the drastic program of conservation which their depletion has necessitated. It appeared to the editor that the treatment of these topics would result in an instructive volume, even if the more abstract and theoretical phases of the subject were omitted.

Lack of data accounts for the sketchy treatment of several sections. All birth and death figures relating to periods prior to the beginning of the present century are conjectural, and the vital statistics of the country are still very inadequate. Even to-day there are large and important sections outside the Registration Area. There exists virtually no information on the fertility of our people; on the comparative fertility of different racestocks in the United States, and on the effect upon fertility of residence in this country; on the size of families; and on the duration of marriage. Statistics of migration are inadequate, not only concerning movements of various nationalities to and from the United States, but also concerning border and internal migrations. There is

need as well of estimates of National wealth prior to 1850, and an official price index to be used in reducing estimates of wealth, currency, and taxation to a common level of purchasing power. Further information is also needed regarding individual incomes and earnings, occupations, agricultural resources, crop production, land rents, land values, and the comparative results of various methods of cultivation.

Our contributors have been wary to commit themselves on the ultimate limits of the American population. Just as it was impossible, at the opening of the nineteenth century, to predict the population increases of the next hundred years, because of the changes effected by the Industrial Revolution, so it seems equally hazardous at this moment of rapidly changing world conditions to estimate the population of the United States at any distant date. Prophecy is at all times dangerous, especially so in view of our lack of basic data and the imminent possibility of fundamental discoveries in agriculture or in the production of synthetic foodstuffs. Every one realizes, moreover, that the knitting together of the countries of the world by vastly improved methods of communication has made the whole world a unit and has given the population problem of each country an international aspect. This linking of countries and the close interrelationships that it has brought may ultimately necessitate a liberalizing of our immigration laws. At all events, only through amity and cooperation between nations can the population problem of any individual country be solved. These newly emphasized interdependencies of the peoples of the earth make it more difficult than ever before to determine the limits of population in any country.

There is no attempt in this book to speak with finality. Our purpose is to bring out some of the more insistent

social and political phases of the population problem, to stimulate a research attitude on the part of our citizens, and to encourage a more dispassionate basis of judgment among American legislators. Any National program must be flexible and easily modified to suit changing conditions. We have emphasized the necessity for further investigation and for the collection and analysis of additional data. We hope that these papers may be instrumental in replacing the prevailing unscientific and almost arrogant attitude on population questions in the United States with a spirit of scientific investigation and an understanding of the value of racial backgrounds differing from our own, which may lead eventually to a practical and liberal population policy.

The editor acknowledges his indebtedness to his associates in the preparation of this volume. They have been cooperative and patient. He is especially under obligation to Miss Bessie Bunzel, of his own office, who has carried the brunt of the work both in the arrangement of the program and in the preparation of the volume for the press. But for her assistance, this book would not have been possible.

Louis I. Dublin

NEW YORK CITY December, 1925

### **CONTENTS**

#### PART I

#### INTRODUCTION

I. THE STATISTICIAN AND THE POPULATION PROBLEM By Louis I. Dublin, Statistician, Metropolitan Life Insurance Company	3
PART II	
STATEMENT OF THE PROBLEM	
II. POPULATION GROWTH IN THE UNITED STATES By E. B. REUTER, Professor of Sociology, University of Iowa	19
III. NATURAL INCREASE OF POPULATION  By Warren S. Thompson, Director of the Scripps Foundation for Research in Population Problems, Miami University	33
IV. URBANIZATION OF POPULATION By HORNELL HART, Associate Professor of Social Economy, Bryn Mawr College	52
PART III	
POPULATION AND NATURAL RESOURCES	
V. THE OPTIMUM SIZE OF POPULATION  By A. B. Wolfe, Professor of Economics, Ohio State University	63
VI. POPULATION AND AGRICULTURE  By Don D. Lescohier, Professor of Economics, University of Wisconsin	77
VII. AGRICULTURAL CAPACITY AND POPULATION INCREASE  By Alonzo Englebert Taylor, Director, Food Research Institute, Stanford University	94

46	CONTENTS	
VIII.	MINERAL RESOURCES FOR FUTURE POPULATIONS By F. G. Tryon and Lida Mann, Division of Mineral Resources, United States Geological Survey	III
	PART IV	
	POPULATION AND IMMIGRATION	
IX.	RACIAL COMPOSITION OF THE POPULATION By Henry Pratt Fairchild, Professor of Sociology, New York University	141
X.	EFFECTS OF IMMIGRATION ON THE AMERICAN TYPE By Ales Hrdlicka, Curator, Division of Physical Anthropology, United States National Museum	153
XI.	A RATIONAL IMMIGRATION POLICY By W. W. HUSBAND, Second Assistant Secretary, Department of Labor, Formerly Commissioner- General of Immigration	167
XII.	THE IMMIGRATION PROGRAM OF CANADA  By R. H. COATS, Dominion Statistician, Ottawa, Canada	176
XIII.	IMMIGRATION AND NATIONAL LIFE By ALEXANDER GOLDENWEISER, Lecturer on Anthropology, New School for Social Research	195
	PART V	
	POPULATION AND LABOR SUPPLY	
XIV.	TRAINING AND DIRECTION OF OUR LABOR SUPPLY By George Soule, Director, The Labor Bureau, Incorporated	213
XV.	RESTRICTIVE IMMIGRATION AND EMPLOYMENT By BRYCE M. STEWART, Director of Employment and Insurance for the Amalgamated Clothing Workers	223
XVI.	EFFECT OF THE EMPLOYMENT OF WOMEN ON POP- ULATION  By Bessie Bunzel and Robert Vane, Jr., of the Metropolitan Life Insurance Company	234

## CONTENTS

## PART VI

#### Outlook for the Future

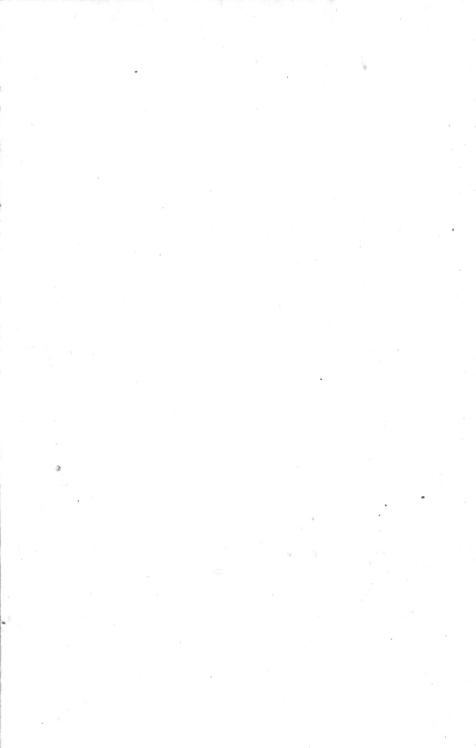
XVII.	EFFECT OF THE HEALTH MOVEMENT ON FUTURE POPULATION  By Samuel J. Holmes, Professor of Zoölogy, University of California	257	
XVIII.	Family Allowance Systems and the Future of Population By Paul H. Douglas, Associate Professor of Industrial Relations, University of Chicago	273	
XIX.	TREND OF POPULATION WITH RESPECT TO A FUTURE EQUILIBRIUM  By R. M. MacIver, Head of the Department of Political Economy, University of Toronto	287	
	Typey	OTO	

# LIST OF FIGURES

I.	Rate of Growth of White Population of the World and of Production of Pig-Iron, Copper, and the Mineral Fuels	113
2.	YEARLY OUTPUT OF IRON ORE PER WORKER EMPLOYED AT IRON MINES IN THE UNITED STATES	115
3.	YEARLY OUTPUT OF COPPER PER WORKER EMPLOYED AT COPPER MINES IN THE UNITED STATES	116
4.	Increase in Difficulty of Mining Anthracite in the United States, as Illustrated in the Nanti-coke District	132
5.	OUTPUT OF COAL PER MAN IN AMERICAN MINES	133
6.	DEATH-RATES PER 100,000 POPULATION FROM THE FOUR CHIEF CAUSES OF DEATH FROM ORGANIC DISEASES	261
7.	DEATH-RATES PER THOUSAND BIRTHS OF INFANTS UNDER ONE MONTH AND OF INFANTS BETWEEN SIX AND TWELVE MONTHS OF AGE IN ENGLAND AND WALES	267
8.	CRUDE EFFECTIVE FERTILITY OF EACH SOCIAL CLASS	290
9.	DECLINING BIRTH-RATE IN EUROPE	299

# POPULATION PROBLEMS

# PART I



# POPULATION PROBLEMS

#### CHAPTER I

# THE STATISTICIAN AND THE POPULATION PROBLEM

By LOUIS I. DUBLIN

STATISTICIAN, METROPOLITAN LIFE INSURANCE COMPANY

THE population problem is to-day one of the most vital in American life. It interests the statistician professionally: it affects every intelligent citizen. Perhaps no other subject has greater national and international significance. nor has any other developed such a variety of opinion or aroused greater antagonisms and prejudices. The World War was essentially an outgrowth of a pressing population problem which confronted the nations of Europe ten vears ago. The peoples of Central Europe were overcrowded. Each country needed room for expansion and desired additional markets and colonies where surplus peoples could be accommodated and food could be raised for the use of the homeland. Germany more than any other country was striving for a place in the sun, and found her borders shadowed on the one hand by France and on the other by Russia. To make matters worse, she felt a sense of superiority to France, whose population she had far outstripped in numbers. The year 1914 seemed an opportune time to strike for more territory. The fears engendered in France and Russia by an evergrowing Germany contributed to a state of mind which made war inevitable. This is an outstanding example of

an almost universal condition. In the Balkan countries, the same situation prevailed; each dreamed of a greater Greece, or Bulgaria, or Roumania, as the case might be, a dream which could be realized only at the expense of a neighboring country. In Japan, the intense pressure of the population on the island kingdom accounts for its desire to spread out to unsettled areas near at hand and to seize opportunities for migration to America and Australia. This has produced hostile reactions and closed doors against the Japanese, in Australia, the United States, and South America. The mistrust thus aroused is responsible for the rapid growth of the war spirit.

These are instances of the sinister international aspect of the population problem. Within individual countries, also, exaggerated nationalism and exclusiveness result from the pressure of population. The psychology which they have engendered in the United States has given rise to two movements: the Ku-Klux Klan and the new immigration policy. Both express the point of view of a great mass of native Americans in all parts of the country, which may be summed up in the slogan, 'America for Americans.' What underlies these phenomena is, first of all, a distrust of the newcomer, resentment at his success, and the fear engendered by his greater fertility and rapid increase in numbers after his arrival. The adherents of the Klan see themselves losing control of the country. Their formation of an organized group, then, is really a defense reaction to the passing away of power from their own hands into those of aliens whom they consider inferior or, in any case, unable to conduct the affairs of the country. Essentially the same reasoning is at the bottom of the new immigration law, which admits into the country only a limited number of aliens, selected from the few countries whose peoples and standards of living most