DEMOGRAPHIC DESTINIES

Interviews with Presidents of the Population Association of America

Interviews Referencing Warren S. Thompson
PAA President in 1936-38

This series of interviews with Past PAA Presidents was initiated by Anders Lunde (PAA Historian, 1973 to 1982)
And continued by Jean van der Tak (PAA Historian, 1982 to 1994)
And then by John R. Weeks (PAA Historian, 1994 to present)
With the collaboration of the following members of the PAA History Committee: David Heer (2004 to 2007), Paul Demeny (2004 to 2012), Dennis Hodgson (2004 to present), Deborah McFarlane (2004 to 2018), Karen Hardee (2010 to present), Emily Merchant (2016 to present), and Win Brown (2018 to present)

WARREN S. THOMPSON

We do not have an interview with Warren Thompson, who was the third PAA President (1936-38). However, as Andy Lunde and Jean van der Tak (VDT) were interviewing other past presidents, they regularly asked questions about those early presidents whom they had been unable to interview. Below are the excerpted comments about Warren Thompson.

CAREER HIGHLIGHTS

Warren Thompson was born in 1887 in Weeping Water, Nebraska. He received his A.B. from Nebraska Wesleyan University in 1907, his A.M. from the University of Nebraska in 1911 and his Ph.D. from Columbia University in 1915. His dissertation at Columbia was Population: A Study in Malthusianism, and it caught the eye of the prominent newspaper publisher, E. W. Scripps, whose business was (and still is) based in Ohio, who was becoming concerned about the issue of population growth. Hodgson[1] gives us these details: "After a tour of Asia aboard Scripps's yacht, Thompson agreed to head the first foundation exclusively focused on the study of population. The Scripps Foundation for Research in Population Problems, located at Miami University in Oxford, Ohio, in Scripps's home county of Butler, was established in 1922. Pascal Kidder Whelpton (1893–1964), an agricultural economist from Cornell University, joined Thompson as assistant director in 1924. After Scripps's death in 1926, finances for the foundation were fixed at a modest level, preventing its further expansion. As director of this foundation, Thompson engaged in studies of both international and domestic demographic trends for 30 years.

In 1929, Thompson published two notable works on international population dynamics: a book, Danger Spots in World Population and an article "Population" in the American Journal of Sociology. In the latter, Thompson elaborated an early version of demographic transition theory. He placed all countries into three groups based on trends in their rates of natural increase. He assumed that countries would progress from Group C (high birth and death rates) to Group B (high birthrates but declining death rates) to Group A (low birth and death rates) as they became increasingly industrialized. In Danger Spots in World Population, Thompson used this framework to identify regions experiencing population problems and to derive policy recommendations. In a controversial analysis, he concluded that Japan, then in a period of rapid population expansion, had only one policy alternative: "to expand by the acquisition of more territory" (Thompson, p.43). This theory that seemed to support Japanese imperialism generated little interest among Western policymakers during the interwar period.

Thompson's Population Problems, first published in 1930, was the major textbook in population studies until the 1960s. Population Trends in the United States (/places/united-states-and-canada/us-political-geography/united-states) (1933), written with Whelpton, established him as a leading forecaster of U.S. population trends. (His and Whelpton's set of projections for the United States (/places/united-states-and-canada/us-political-geography/united-states), published in 1943, gave 2000 totals under variant assumptions ranging from 129 million to 198 million.) In 1944, Thompson again turned his attention to international population trends in Plenty of People, which contained an updated version of his 1929 transition framework. In the period from 1944 to 1946, Thompson, sociologist Dudley Kirk (1913–2000), economist Frank Notestein (1902–1983), and sociologist Kingsley Davis (1908–1997) all generalized the Western demographic experience in similar ways. Together, their

[1] Dennis Hodgson, "Thompson, Warren S." Encyclopedia of Population, edited by Paul Demeny and Geoffrey McNicoll (New York: Macmillan Reference, 2003); https://www.encyclopedia.com/social-sciences/encyclopedias-almanacs-transcripts-and-maps/thompson-warren-s.

work constitutes the classic theory of the demographic transition." Thompson died in 1973 in a nursing home near Oxford, Ohio.

From Andy Lunde's interview with Frank Notestein in 1973:

NOTESTEIN: ...What happened is that individuals like Warren Thompson, with old man Scripps of the newspaper chain--you've heard this story--he dug Thompson's thesis on Malthus out of the library, read it, took Thompson on his yacht out to the Far East and came back and established a foundation [Scripps Foundation for Research on Population Problems, Miami University, Oxford, Ohio]. It was meant to be much larger but there were two quick deaths [and estate taxes to pay]. I think as a maximum they never had much more than $15,000 a year for both of them [Thompson and Whelpton] and it wouldn't have been possible in later days, except they got money from the Rockefeller Foundation.

LUNDE: When I used to talk to P.K. Whelpton, one thing I never asked was how he got started with cohort fertility. Was he, for example, influenced by Woofter?

NOTESTEIN: No, this came out of projection problems that he had. In the projection system, you pretend the events of this year are the events of a cohort passing through. Some of the stuff went wrong. And Pat said, "Well, let's do this by order of birth too. So you [project] not the childbearing experience of females age 20 this year, but the childbearing experience of childless women at age 20 this year. At what age do they have first children, second children and so forth. The assembly is a synthetic cohort. If you did this fairly age-specifically, you get one year in which 100 women have 108 children. That's a neat trick. Assuming he ran into these ridiculous things, this drove him into real cohorts. Synthetic cohorts become impossible. Pat was always looking for some way of getting a projection.

I think you probably have everything on Pat. That foundation [Scripps Foundation for Research in Population Problems] was originally two men and they were to take turns living around the world, but then the funds ran short. [Warren] Thompson was a better theorist than Pat. Pat was a better statistician; he came from agricultural economics. A very solid fellow. Clyde worked closely with him.

From Andy Lunde's interview with Clyde Kiser in 1973:

LUNDE: What about the period when you were president, in 1952-53. What were the issues in those years?

KISER: Those meetings were in Cincinnati [May 2-3, 1953]. We went out Thursday night; got there Friday morning. In those days, they were much concerned about population problems in the underdeveloped areas, the demographic consequences of modernization. Notestein and his group at Princeton had discovered a rather consistent tendency for modernization to bring decline in death rates before birth rates are affected, thus modernization tends to be followed by a period of rapid population growth. And partly because of the activities of the WHO, death rates were tumbling all over the world.

So we met in Cincinnati and one of the things I was worried about was the possibility of a parliamentary snag at the business meeting at which I was to preside. An important matter to be decided was whether there should be an amendment to the constitution of PAA regarding the election of officers. Before that time, the officers were elected by the Board of Directors. There was natural discontent among the people. Those who were against the change pointed out that this was the way businesss organizations did it; you elected the directors and they elected the officers. People were

represented through the directors. But the people were naturally not satisfied with that, so they did manage to get that change in the constitution. Thereafter, the officers were elected directly by the membership and it was specifically provided that there should be at least two names proposed for all offices except for secretary.

The meeting in Cincinnati carried through Friday and then on Saturday morning, Warren Thompson had arranged for buses to come to take us from Cincinnati to Oxford, Ohio [location of the Scripps Foundation for the Study of Population Problems]. So, we had our Sunday meeting in Oxford, Ohio. And Thompson and Whelpton did a very good job as hosts; they treated the whole Association to a steak lunch.

LUNDE: Interesting that you should mention that. When I first went to NCHS, Harry Rosenberg and I took a trip out to see Whelpton, to see what he was doing for us on cohort fertility for a publication which later Arthur Campbell prepared for us. We were walking across the campus [of Miami University] and we bumped into Thompson; couldn't believe it. He was still spry and active and very anxious to talk to us. We had a wonderful luncheon with him.

LUNDE: To go back a moment, you were telling me earlier about your visit to the White House during the 1935 meeting and you said something about Rupert Vance being taken up in FDR's elevator. Tell us that story.

KISER: We were invited for tea, so immediately after the meetings in the Willard Hotel, we went over to the White House. Most of us started up the stairway there and a flunky came out and told Vance, who of course was on crutches, that they had an elevator for him. So they led him to a little elevator which Vance thought had been installed for President Roosevelt. This was the tea in 1935.

Well, about eight years later, in January 1943, there were about a dozen demographers that were invited to the White House, invited by Mrs. Roosevelt, and the invitation read something like this: that the recipient was invited to the White House for dinner on a given night in January 1943 to honor the work of Henry Pratt Fairchild. I happened to be one of those. I can't remember all of the names, but I do remember several. Mrs. Roosevelt and Vice President Henry Wallace were there. Orson Welles, Fairchild, Leon Truesdell, Frank Notestein, Professor Ed Hutchinson of Pennsylvania, and Warren Thompson; I distinctly remember some of the comments he made. I don't recall whether Whelpton was there or not.

We were first met in the hallway--we had our credentials with us and were able to get by the gate. We had a little reception, drinks, then went into State Room for dinner. I remember I sat next to Orson Welles. After dinner, Mrs. Roosevelt took us up the elevator to her private apartment, where she showed us a few rooms--up there on the next floor. I recall seeing the large photograph of Abraham Lincoln. After we got into her apartment, Mrs. Roosevelt settled down in a comfortable chair, took out her knitting, and told us that she didn't plan to say anything, that she wanted us to start talking while she listened. Fairchild acted as presiding officer. He outlined some of the outstanding population problems of the day as he saw them and tried to get the conversation rolling. I recall we got into questions of race, immigration, and urban-rural differentials in fertility. I remember that Thompson quoted one of his bits of wisdom in commenting on the fact that birth rates seemed to be low in cities. He said, "Well, with apartment-house dwelling it's a little like animals; you can't breed animals in captivity."

LUNDE: What was your impression of Henry Pratt Fairchild as a person? [See reference to Warren Thompson]

KISER: He was a very interesting man. I succeeded him at NYU, not as head of the department, but I

began teaching the courses he'd taught there when he retired in 1945. I think the first time I saw Henry Pratt Fairchild was about 1929 or 1930. Warren S. Thompson was coming through New York at the time to go to Europe and old Professor Tenney told us that Fairchild and Thompson were having a meeting at some hotel at lunchtime and that his class in sociology was invited to go; so we did. Thompson was then a fairly young man. There was also a speaker there, a commissioner of immigration, I believe. He didn't know much about demography but he was under the impression that birth rates in Italy were increasing because he knew that the total number of births were increasing each year. Fairchild and Thompson assured him that the birth rates were actually decreasing.

Fairchild, as I said, had an important role in planning the Association. Incidentally, Fairchild was simultaneously the first president of the Population Association of America and of the Eastern Sociological Society, which was also formed in 1931.

From a group interview by Harry Rosenberg (substituting for Anders Lunde) in Chapel Hill with C. Horace Hamilton, Joseph J. Spengler, and Clyde Kiser in 1976:

HAMILTON: I never did know Frederick Osborn. Evidently he was one of the great men in the early history of the Population Association. The man I knew first about in this field was Warren S. Thompson. He had written his doctoral dissertation on the population of China, I guess. I had first met and heard him talk about China.

SPENGLER: I think Warren ran into Scripps while he was making a trip to China and that's how Scripps got interested in this thing and put up the Scripps Foundation [for Research in Population Problems].

KISER: Notestein in one of his articles says that Scripps was interested in world population. He went up to Columbia University and was going through the card catalogue and ran across a reference to Thompson's book [dissertation on Malthus] and got impressed with Thompson and induced him to go with him on a trip to the Far East, in his yacht. They were gone for about a year and when they came back they had the plans for the Scripps Foundation.

HAMILTON: I think the Scripps Foundation played a big role coordinate with the Population Association of America. There were Thompson and [P.K.] Whelpton at Scripps, Clyde Kiser at the Milbank Memorial Fund. Whelpton was an agricultural economist and taught down at Texas A & M College, where I had gone to school. I didn't meet him while I was there.

There were interlocking relationships. In the early 1940s, I was offered a job by the commissioner on hospital care of the American Hospital Association. One of the first people they checked me out with was Warren Thompson--wanted to know if Hamilton would do any good as a demographer on their staff. Warren evidently gave me a good recommendation, so I got the job. It moved my salary from about $4500 up to $8000 just within one year. Is Warren living?

KISER: No, he died about nine years ago. He'd been out of his mind for a couple of years.

From Jean van de Tak's interview with Dudley Kirk in 1989:

VDT: You mentioned to me at a PAA meeting not too long ago that you felt more should be said about Warren Thompson. You noticed that he hadn't even been mentioned in the International Encyclopedia of Population [1982].

KIRK: And Whelpton, of course. The two of them were at the Scripps Foundation and they were

always participants in the early meetings. Warren Thompson's book [Population Problems] was the textbook in the field for years, generations. It had five or six editions. I had a lot of respect for him. And I liked Pat Whelpton very much. Pat originally was sort of in Thompson's shadow.

only possible by accepting two principles: 1) within the very wide limits of universally accepted value premises, virtually every possible position must be accepted as potentially valid somewhere; and 2) each government must decide for itself. It follows that documents based on these principles must be inclusive and contain virtually all the clichés of every ideology. Moreover, they must be expressed in the least colorful language possible to eliminate words that the world's several ideologies have come to use as slogan-clubs in lieu of rational discourse.

Hard as such documents are to read, and impatient as any knowledgeable professional must become with their content, it remains probable that the documents and ultimately the report of the Conference will be vastly important in fostering useful action. Everyone can find a text that provides a kind of United Nations sanction for his position to be heard. World-wide distribution of this documentation should make it much more difficult than in the past for individuals and governments to dominate discussions because of public ignorance of alternative points of view.

Perhaps even more important is the fact that the eclecticism which is essential to bring nearly unanimous acceptance serves also to bring ideological disputes into perspective. We are all accustomed to hearing single solutions that maximize ideological disagreements — it's social-economic development, education, the status of women, urban expansion, rural development, the redistribution of income, lifting the age at marriage, contraception, abortion, sterilization, financial incentives and penalties, imperialism, genocide, etc. When, however, the whole problem has to be put in perspective in bland language, it becomes apparent that the ideological differences are small indeed, and turn vastly more on matters of emphasis than of content. Moreover the differences are clearly least among those governments that have given the most attention to the subject. All of this seems to augur well for the usefulness of the Year. The documents will be informative, will open the full range of problems for study and discussion, and will serve to narrow the range of dispute. The process is frustrating, but it is the best one the world has thus far discovered, and looking back at the rapid change of national and international positions during the past two decades one must conclude that it is very useful. There is certainly a reasonable chance that the Population Year and the Population Conference will turn out to be a great success in moving the world toward a rational and civilized view of its population problems.

Frank W. Notestein

WARREN S. THOMPSON
1887-1973

Warren Simpson Thompson died July 16, 1973 in a nursing home near Oxford, Ohio. Dr. Thompson was born in Weeping Water, Nebraska, April 29, 1887. He received the A.B. degree at Nebraska Wesleyan University in 1907; the A.M. at the University of Nebraska in 1911, and the Ph.D. at Columbia University in 1915.

Thompson's dissertation at Columbia, Population: A Study in Malthusianism, came to the attention of E. W. Scripps, a prominent news-

paper publisher. Scripps invited Thompson to accompany him on an extended trip to the Orient in his yacht. While on this trip the two men planned what was to become the first foundation in the world devoted exclusively to the study of population. Thus the Scripps Foundation for Research in Population Problems was founded in 1922 and Thompson served as its Director until 1953 when he was succeeded by his long-time colleague, the late Pascal K. Whelpton. The Scripps Foundation was placed within Miami University, Oxford, Ohio probably partly because of its location within Mr. Scripps's native Butler County.

Thompson chose well when he invited Pascal K. Whelpton to join him as Associate Director of the Scripps Foundation in 1924. They complemented each other admirably. Thompson was the philosopher of the pair and was more interested than his partner in world population problems. Whelpton was the statistician and was especially interested in developing measures of demographic phenomena.

Thompson and Whelpton quickly attained national prominence as forecasters of the national population. They took an assignment with the President's [Hoover's] Research Committee on Social Trends and this resulted in the book Population Trends in the United States, published in 1933. Among Thompson's own publications were five editions of Population Problems. The first edition appeared in 1930 and the fifth (with David T. Lewis) in 1965. For many years this was virtually the only textbook on the subject in this country and it is still used considerably.

The work of the Scripps Foundation stimulated national interest in population. Both Thompson and Whelpton did much to invigorate the Bureau of the Census and the Division of Vital Statistics. Thompson's study Ratios of Children to Women helped to initiate the Census Bureau's series of Census monographs based on the 1920 Census.

Thompson did much toward the organization of the Population Association of America in 1931 and became its third president in 1937. He was also American Vice President of the International Union for the Scientific Study of Population.

On the world front Thompson was well known for his warnings about the population powder kegs in the Orient. These warnings were pointed up especially in Danger Spots in World Population published in 1929. This reviewer, then a graduate student at Columbia University, heard Thompson describe some of these "danger spots" during the fall of 1929 when Thompson stopped over in New York City en route to the Orient and talked at a meeting arranged, as I recall, by the Foreign Policy Association. The reviewer was one of several students in Alvan A. Tenney's seminar who accompanied their professor to see and hear Thompson, a renowned former student of Tenney's.

That Thompson's pessimism remained after the Second World War is attested to by his book Population and Peace in the Pacific published in 1946. After spending some months in Japan on MacArthur's staff as an advisor on census and population policy, he was quite doubtful about prospects in that country. In a paper, "Future Adjustments of Population to Resources in Japan" presented at a Milbank Memorial Fund Conference in 1949, Thompson concluded "Hence, I find myself very apprehensive regarding Japan's future. A real catastrophe involving millions of persons may be in the making and it may very well be precipitated by the

rather sudden withdrawal of American support from the economy of Japan before the Japanese have been able to make any workable adjustment of population to resources." (Modernization Programs in Relation to Human Resources, Milbank Memorial Fund, New York, 1950, p. 153.)

Thompson lived to see that he had been too pessimistic about Japan's ability to reduce her fertility. In the second edition of the 1946 book, published in 1959 under the title Population and Progress in the Far East, Thompson stated, "Shortly after the war, fortunately, the serious character of Japan's population problem gained wide recognition among thoughtful Japanese..., and there was relatively free access to the knowledge needed for the rapid spread of birth control; a little later, the government took positive action in the encouragement of family planning. The demographic results are seen in the rapid decline in the birth rate" (p. 116). Nevertheless he remained skeptical about Japan's economic future.

Although subsequent history has failed to bear out some of Thompson's positions and statements, his central concern about population problems is now shared by many. Thompson will be long remembered as an able and dedicated man who did much to establish demography as a science and as a subject of seminal importance. Those privileged to have known him personally will recall him as a vibrant personality and a gentle and humane man, one who was concerned with the welfare of the underpriviledged throughout the world. Although named for another, the Scripps Foundation for Research in Population Problems, now directed by W. Frederick Cottrell, stands as a living memorial to Warren S. Thompson, who brought it world fame.

Clyde V. Kiser

We do not have a presidential address for Warren Thompson, but this paper published in 1936 gives us a glimpse of his thinking around the time of his PAA presidency.

The Distribution of Population

By Warren S. Thompson

THE distribution of population always has been, and still is, determined chiefly by the economic necessities of individuals, families, or larger groups, although social usages, personal preferences, and group traditions have always interfered to a considerable extent with the free play of the economic factors in this process. Furthermore, in spite of the fact that individual economic interests have dominated the movements and the growth of populations, it must be recognized that the distribution of people calculated to serve best the economic needs of the individual at the moment is not necessarily the most economic for the community as a unit, nor the best from the social point of view.

Throughout the greater part of human history the abundance of game and the fertility of the soil have been the most important factors in determining the distribution of people. River valleys have long been noted for their fertility and for their large populations. On the other hand, dry lands and mountains have always had sparse populations. Wherever the fertility of the soil or the state of the agricultural arts resulted in a surplus of food and other raw materials beyond the need of the producers, towns and cities developed, and it appears that the proportion of people living in them has always been determined by the proportion of the agricultural production above that needed to maintain the farm population at or near a subsistence level. Always and everywhere, man seems to have developed a town population as large as he could support. The location of these towns and cities has generally been determined by the advantages a site possessed from the standpoint of trade and defense, although again, social usage and personal preference and even mere accident have never been lacking in determining the locations of cities.

Distribution Changes Since 1800

With this very brief mention of the more general economic factors affecting the distribution of population in past times, it will be well to turn attention to the factors which have been of greatest importance in effecting the distribution of people as we find it today. Since 1800 profound changes have taken place in the distribution of population, so that, although the underlying forces which were operating previously have continued to operate, it is of much greater importance now to study as carefully as may be how these recent changes have been effected than to dwell on the general economic and geographic factors that have always been present, if there is any thought of learning how to control future developments.

In passing, it may be well to call attention to the nature and the magnitude of the changes that have taken place in Western Europe and its settlements since 1800. Never before has any large area increased in population so rapidly as has this area during the last century and a half. Partly as a result of this rapid growth of Europeans, the world distribution of population has been changed to a degree that would have been utterly

inconceivable to the well-informed European of 1800. Europe and its settlements which contained perhaps one sixth of the world's population in 1800, today contain one third or more.

But this is not all. The proportions of the rural and urban populations in most of these countries have changed in even greater degree. As late as 1820, almost 93 per cent of the population of the United States lived in communities having less than 2,500 people; and although the proportion of the population living in rural communities was undoubtedly lower in Western Europe, it probably was not less than 75 or 80 per cent, even in England at the beginning of the nineteenth century. Today the rural population varies from about 45 or 50 per cent in the United States and France to about 20 per cent in England and Wales. This is a tremendous shift and is fraught with great significance from both economic and social points of view.

FACTORS IN POPULATION CHANGES

In order to understand how these changes in world distribution of population and in rural-urban distribution could take place, it will be necessary to pass in review very briefly the chief new factors which have been operating since the beginning of the industrial revolution.

Increased agricultural production

1. There has been a more or less continuous improvement in agricultural production per man-hour among the peoples of European descent during most of this period. This has made it possible for a smaller and smaller proportion of the population to provide the agricultural raw materials needed; hence, it has made possible a new rural-urban distribution of population. The opening up of new and fertile lands in various parts of the world also contributed largely to the increase in the efficiency of agricultural labor and thus to the increase of urban population.

Use of steam

2. The invention of the steam engine and of machines it could drive gave man the power to turn out useful manufactured products at a rate exceeding the dreams of the most imaginative well-wisher of the race. In the course of time this improvement in industrial techniques also contributed heavily to the further improvement in agricultural techniques, which in turn rendered still fewer agricultural workers necessary.

3. Steam transportation, though merely an adaptation of steam power to locomotion, has played a part in the distribution of population not a whit less important than power machinery used in manufacturing processes. It has literally made a large part of the world a single economic unit by making most regions quickly and easily accessible to most other regions. Certainly, without quick and cheap steam transportation Western and Central Europe could never have become the workshop and the trade center of the rest of the world to the extent that it did during the nineteenth century, nor could the settlements of Europeans abroad have grown and developed as they did.

At this point it will be well to consider for a moment the inherent qualities of steam as they affect the distribution of population when steam is used directly for power, since they have played a major rôle in determining the urban structure of today. Steam is most economical when produced in relatively large amounts and when used very close to the boilers in which it is generated. The use of

steam directly for power, therefore, is most efficient when the power units are relatively large and when they are concentrated around the steam plant. Consequently, by and large, steam has exercised a centripetal or concentrative force on population engaged in manufacturing and commerce, in spite of increasing the area within which exchange takes place. On the other hand, steam transport has tended to scatter the agricultural population more widely, and in some regions has even led to a decrease in its density. This result has been particularly noticeable where the mechanization of agriculture was feasible and where new and more fertile areas were brought into competition with older areas. Thus steam transport is an integral part of the great agricultural and industrial revolution which effected the new distribution of population discussed above.

At present, however, the direct use of steam power in industry and transport is giving way before the greater flexibility and speed of electricity and the internal combustion engine. It is, of course, too soon to say, but it seems not improbable that the revolutionary effects of these new agents on the distribution of population will be as great as those of the direct use of steam and the mechanization of industry and agriculture have been.

Location of mineral resources

4. The fact that Western and Central Europe and the United States were relatively rich in mineral resources was also of vital importance in increasing their proportion of the world's population and in the development of their cities. There can be no reasonable doubt that these regions would have remained of minor importance if they had had only small amounts of coal and iron and of the other minerals needed in modern industry.

Social and political organization

5. It was also of importance in determining the distribution of population in Western Europe and its settlements that the social and political organization of this region was peculiarly well adapted to take advantage of these new techniques. Nowhere else in the world was society so well organized to accumulate capital and to concentrate it in a few hands. Without this accumulation of capital it would have been impossible to exploit these new inventions and enlarged resources. Nowhere else was there so large a body of managers and laborers capable of learning quickly how to build and to operate these new machines. Nowhere else were there men so experienced in trade and finance as were the men in this same area. Nowhere else was government so stable and so friendly to the expansion of commerce and industry. It is not surprising, therefore, that the economic advantages accruing to Western and Central Europe from their early industrial development rendered them able to support a large addition to the population at home as well as to send out a large number of emigrants to the United States, Canada, Australasia, and other thinly settled lands in the temperate zones.

Life extension

6. There was one other factor of prime importance in encouraging a dense population in cities during the last century, viz., the fact that man was learning how to live in large and concentrated aggregations and still maintain a relatively low death rate. Medicine and sanitation were making rapid progress. Never before in the history of the world had cities been

able to keep their death rates below their birth rates, no matter how high these latter were. For a time, therefore, the cities of the Western World became producers of men rather than mere consumers of them as was customary.[1] This was a change of first-rate importance, to be ranked with the development of steam power, since a steadily increasing proportion of the population was needed in the non-agricultural pursuits which were concentrating in the cities.

That this period during which cities had a surplus of births above replacement needs was not long-lived is not because we have not continued to save life, but rather because the birth rate in the cities of the Western World has fallen faster than the death rate. Today very few of the larger cities in the Western World would have enough births to insure the maintenance of their populations if it were not for the favorable age composition due to immigration and a high birth rate in the recent past. The cities are again becoming dependent upon the rural areas for their increases in population. But now, instead of having three fourths or more of the total population to draw upon, they have only from one fourth to one half; hence, they cannot expect to make good any large birth deficit of their own by immigration from the surrounding country districts. In the future if they are to maintain themselves by immigration, it will have to be from more distant lands (and races) where there is still a large rural population having a high birth rate.

FRICTION ATTENDING MIGRATION

Though it is believed that the six factors just noted, when considered in conjunction with the still more general economic factors mentioned at the outset, will explain the changes in population distribution in the Western World during the last 150 years and also the differences between this pattern and the pattern in such countries as China and India, it must be recognized that there is always a tremendous amount of friction involved in the flow of population from one locality to another. Population is never distributed over the world as a whole, between region and region within a country, between urban and rural communities, or even within a community, in the manner which a completely free play of economic forces would dictate, i.e., in the grouping which would result in the most efficient use of the labor of the population involved. Consequently there is always a great waste of transport which is probably at its maximum in the modern industrial community. If populations were now distributed in the most economical locations, there would be little chance of changing this distribution except by subsidies to industrial and commercial enterprises sufficient to nullify the economic advantages of their present locations. But since there is so much friction hindering the flow of people towards the most economic location, there is the possibility of influencing the direction and the amount of the flow by removing some of these frictions, as well as by economic subsidy.

AIMS IN POPULATION DISTRIBUTION

Before entering on a discussion of the frictions affecting the distribution of population, it will be well to state in brief the aims which should govern its distribution within a nation. From the standpoint of general economic welfare it would be desirable to have all economic activity conducted in the

[1] Mabel Craven Buer, *Health, Wealth and Population in the Early Days of the Industrial Revolution*, London: G. Routledge & Sons, Ltd., 1926.

locality where goods and services can be produced with the least possible labor, and from which they can be distributed at a minimum cost. Any other distribution of economic activity must necessarily fail to attain maximum efficiency and must be paid for by the community either in longer hours of labor or in lower standards of living. This seems a truism, but it needs reiteration because it often seems to have been forgotten or perhaps never to have been thought of by those responsible for selecting the locations of economic enterprises.

From the standpoint of individual economic advantage, it would be desirable to have population so distributed that the individual would be able to live most comfortably and decently with minimum of labor. But in the distribution of population, as in economic activity generally, the welfare of the community and of the individual will conflict at many points, and the most economic distribution of population will never result in a distribution most desirable to all individuals. The distribution to be sought should be the compromise between individual advantage and community welfare which will do the least violence to decent living.

As was indicated above, the actual distribution of population within a country at any given moment is much influenced by economic and personal factors of a particular and special nature, as well as by those of a general nature. It is the effect of these particular and special factors that are of greatest interest here, and in order to keep the discussion within reasonable bounds it will be confined to a few of the chief factors interfering with the most economic distribution of population within the United States.

EFFECTS OF FREIGHT RATES

Ideally, transportation should affect the distribution of population only as its actual cost enters into the production and distribution of goods and services. Transportation charges which are either larger or smaller than the actual costs of this service partake of the nature of tariffs or subsidies. A community which is charged more than cost for a given unit of transportation labors under a definite handicap in competition with one which is charged only cost or less than cost. Thus a railroad freight rate structure which favors long hauls as compared with short hauls, which equalizes basing points having unlike costs, and which in other ways ignores actual costs of service, is bound to encourage a distribution of industry, and hence of population, which is uneconomic in the sense that it requires more human labor to get a given product made and delivered to the user than would a freight rate structure based on actual cost.

There can be no reasonable doubt that the present structure of freight rates subsidizes certain communities at the expense of other communities. The costs of operating freight terminals in large cities have never been properly assessed against the traffic actually using these facilities; they are carried as a blanket charge against all freight moved by the lines using it. Likewise the basing-point system of determining freight rates within a given area ignores differences in the actual cost of handling goods in communities of different sizes and having varying densities of traffic.

From the standpoint of the distribution of population it is obvious that if in terms of labor involved it actually costs more to move freight from A to B than it does from X to Y while the

freight rates between these two pairs of cities are the same, then A and B may be said to be subsidized in comparison with X and Y in exactly the same way an industry is subsidized by a tariff. We are not concerned here with the justice or the injustice of such subsidies, nor with the practical difficulties of ascertaining the cost of the service in different types of communities; but only with indicating that subsidies of this character do exist, and that because of them certain cities and localities are favored in comparison with others, thus gathering to themselves industry and trade and population over and above what they would if the full costs of transportation of the goods moved into and out of these areas were assessed against these goods. Over and over again in studying rate cases coming before the Interstate Commerce Commission (I.C.C.) one finds disavowal of any serious attempt to ascertain costs of service, although a definite desire to move in that direction is frequently indicated. The point is that when rates are based on what the traffic will bear—the equalization principle—it means that many rates have but little relation to the actual cost of service rendered. They are intended to maintain the existing industrial and commercial competitive areas which they had a large share in creating in the first place. The same is true of the basing-point system of rates, and to some extent even of the distance principle.

The fact that much wasteful cross-hauling is fostered by the present rate system is so generally recognized that no effort need be spent in proving it nor in pointing out the effects of such a system of rates on the distribution of population. The present freight rate structure is undoubtedly one of the important reasons for the continued growth of industry and commerce in and around the larger cities and along the northern Atlantic seaboard. Unfortunately so few facts are available showing the exact economic effects of our present freight rates on the location of business enterprise that it is not generally realized how important a factor they have been in the concentration of population in a few regions.

EFFECTS OF INDUSTRIAL PRICE RATES

Of somewhat similar nature to freight rates in their effects upon the distribution of population are the basing-point price structures developed by various industries—steel, cement, hardwood, and others. Under this system practically every producer quotes the same delivered price at any destination. Practically, differences in costs of production and transportation are ignored to allow all important producers to compete in sales in all important markets. Obviously this system results in attempts to sell over wide areas which cannot be regarded as the *natural* market for a particular mill. When sales are made in these *unnatural* markets which involve large transportation costs, they must be offset by sales made in the natural market involving relatively low transportation costs, in order to enable a mill to keep in business, unless the whole level of prices is kept sufficiently high through monopoly to insure a profit even on sales at a distance from point of origin.

It needs no argument to convince anyone who gives the matter a little thought that the very existence of such a system of pricing helps to determine the distribution of population, and that many of its effects must be uneconomic. When steel is delivered to consumers in Pittsburgh by a mill two hundred miles distant at a lower

price than at the door of this same mill, it is obvious that the distribution of industry and population must be affected by such a price system. This is not a supposititious case. Such sales take place every day under the basing-point system of delivered prices which now prevails in the steel industry and in several other industries in which there is a sufficiently close organization to enforce its observance.

We are not concerned here with either the economic or the ethical justification of this system, but only with pointing out that it leads to a distribution of population different from that which would prevail if prices were quoted f.o.b. the mill and the customer paid the actual freight charges to destination.

ACCIDENTAL FACTORS

In addition, there are many other factors of an accidental nature which have had more or less decisive influence in determining the location of particular mills and commercial enterprises, of cities and towns, and probably even of industrial regions, although this last is more doubtful. For example, it is easy to see that the Great Lakes region has many natural advantages for the manufacture of steel. But just where the plants will be located is probably pretty largely a matter of chance—personal preference for a given locality, the availability of local capital, the enterprise of individuals or of the community in developing docks or building railroads, the ease of securing trained laborers, and a hundred and one other factors which may be called accidental in the sense that they are not definitely planned by anyone. When once a particular type of development has started in a favorable locality, it gathers momentum rather easily, particularly in a rapidly growing country.

A good example of such a regional development, which is accidental in the above sense, is the concentration of the automobile industry in and around Detroit. It is difficult to see wherein Detroit and southern Michigan had any special natural advantages over several other regions for the manufacture of automobiles. One wonders whether personal factors did not have a large influence in its establishment in its present habitat.

WAGE DIFFERENTIALS

Another factor affecting the distribution of population is the existence of wage differentials. Even organized labor recognizes the necessity for accepting different wages in different localities where competitive conditions prevail, if particular enterprises are to be kept running. Thus the United Mine Workers and coal operators fix wages so as to insure "competitive equality" to all mines. "*The principle of a protected competitive existence for all operators and miners has ostensibly been the basis of all wage agreements in the Central Competitive Field.*" [2] Competitive equality is defined as follows: "It means that the rates (wages) fixed for each basing-point must apparently be such that the operators at the different points who pay these rates can compete with each other.[3]

Such a system of wages, like a basing-point system of prices, means that many enterprises will be kept in operation which would be closed down if the actual labor involved in getting coal to market were paid for at the same wage rate by all operators.

[2] Isador Lubin, *Miners' Wages and the Cost of Coal* (New York: McGraw-Hill Book Co., 1924), p. 71. The italics are Lubin's.

[3] *Ibid.*, p. 72.

Clearly, such a wage system will have very marked effects on the distribution of population.

It will also be recalled that under the NRA many wage differentials were recognized. It was not even claimed that all these differentials measured differences in cost of living. Many of them were retained because they were essential to maintain the existing structure of the industry. This was tantamount to saying that although the location of many mills was economically unsound, yet it was better under the circumstances not to disturb this structure by abolishing existing cost differentials. Thus many people were kept at work in their customary jobs and many enterprises naturally having high costs of production and/or distribution were enabled to continue operation.

In these cases and many others of similar character, our interest is not in whether it is good public policy to allow such obstructions to free competition to exist, and to maintain the distribution of population based upon them, but merely in the fact that they do exist and that they have much influence in determining where people will live.

PERSONAL FACTORS

Just as there are many economic frictions which prevent the location of industry and trade in places where the largest amount of goods can be produced and distributed with the least labor, so there are many social and personal elements of friction in the movement of individuals towards the best economic opportunities. Only a few of these can be mentioned. Home ownership and attachment to one's locality hold many people in communities where economic opportunity is small and likely to dwindle. The presence of other members of the family in the neighborhood operates to the same end, as does also that of one's friends, particularly as one grows older. Likewise the lack of knowledge of opportunities existing elsewhere tends to discourage migration even though it may be very difficult to make a living in one's present abode. Furthermore, many workers hesitate to break their relationship with a group with which they have been associated for some time. They come to feel a measure of security in the solidarity of their group, so that they are reluctant to part from it. The fear of strangers and of strange conditions and the uncertainty of making good in new jobs also prevent many people from moving to better economic opportunities.

Another personal factor of much importance in hindering the free flow of population towards the best economic opportunity is the presence of children. The larger the number of children the more difficult it is for the family to move; hence it may well be that large families suffer most from living where economic opportunities are poor.

GENERAL FACTORS

Finally, a few words should be said about some of the more general factors affecting the concentration of population in the modern large city. The early concentration of industry and trade in the cities having water transportation tended to induce still further concentration as long as steam was used directly for power and for rail transportation, and as long as communication was by letter or by personal contact. It was but natural that this concentrative tendency should continue for some time even after electricity and the internal combustion engine had inaugurated a new

age in which the pull of centrifugal forces was greatly enhanced.

The prestige of the larger cities is a factor of great significance in their continued growth. This, too, is to some extent the consequence of the advantages they possessed in the pre-electric age, but it still exists and exerts a powerful attraction upon many people. It seems unlikely, however, that it can continue to draw people to the same extent in the future. The development of electric power and the telephone, the ease of securing variety in the stores of the smaller cities, the distribution of entertainment by radio, the accessibility of the city to those living at a distance when they need its specialized services, and above all the lower costs of living in smaller cities and the surrounding country, are likely to lead to a slower relative growth of the larger places in the not distant future.

Indeed, newer developments may work in the direction of dispersing over much larger areas the concentrated masses of population now found in our large cities, and thus bring about a new type of rural-urban community which will retain practically all the advantages of the present large city and at the same time gain the advantages in less crowded housing, in easy access to work, in cheaper markets, and in more satisfactory recreation facilities, which are natural to less crowded populations. No longer do we need, economically or socially, the large concentrated city which developed during the steam age and which through inertia has persisted into the electric and automobile age. We now possess the mechanical means that will enable us to retain all the economic and cultural advantages of the large cities without the disadvantages of living under the crowded conditions which are characteristic of such cities. How long it will be before we can reorganize economic activity to make use of these new opportunities, no one can tell.

PLANNED DISTRIBUTION

When these numerous factors (and they are by no means all) affecting the distribution of population are taken into account, it is not surprising to find that many industries and business enterprises are badly located from the standpoint of efficient operation; hence, that many people are living in areas where their labor cannot be used advantageously and where their daily life is less satisfying than it would be in other communities. It simply is not true, as has been generally assumed, that if each person seeks his own economic advantage the resulting distribution of population is the best possible distribution from the standpoint of the economic welfare of the community. The distribution of population is not so regulated by competition between groups and regions that it can be expected to achieve automatically the greatest good to the greatest number. It will require much careful planning to secure this end.

However, before any large-scale plans for the redistribution of population are undertaken, an evaluation of what constitutes the abundant life must be made. Only in the light of such an evaluation can desirable goals be set up for guidance in the better distribution of people. We must decide what it is that we desire to achieve by a redistribution of population before we can make sure progress towards that end. We must also know how we can control the distribution of population, and in order to do this we shall have to search long and patiently for the reasons which actually lead people to live in particular com-

munities and to locate their business enterprises there. Only by doing this can we reasonably hope to control the distribution of population for the benefit of the nation as a whole, as well as for that of the individual. At present, unfortunately, we know very little about the relative importance of the economic, social, and personal factors which have actually determined our present distribution of population, and we can scarcely hope to do a better job of distributing people until we understand far more completely the *whys* of the present distribution.

Warren S. Thompson, Ph.D., has been director of the Scripps Foundation for Research in Population Problems, Miami University, Oxford, Ohio, since 1922. He was a member of the special advisory committee for the 1930 census, and special agent for the Bureau of the Census, 1933. He is author of "Population—A Study in Malthusianism" (1915); "Danger Spots in World Population" (1929); "Ratio of Children to Women" (1920, 1931); and "Population Problems" (1930); and joint author of "Population of the Nation" in Recent Social Trends, and "Population Trends in the United States" (monograph).