

## WARTIME SHIFTS OF THE CIVILIAN POPULATION

HENRY S. SHRYOCK, JR.<sup>1</sup>

**D**URING the war, shifts of civilian population were of many types. Construction workers migrated to the sites of army camps and other military installations that were being built, and later local service industries expanded to supply the needs of the troops. Wives followed their husbands from one military post to another. Millions of workers and their dependents moved to war production centers. Much migration would have taken place even in peacetime since there has been a secular trend from farms to cities and from East to West. The depression had dammed up this flow, and it was inevitable that increasing prosperity would swell the current. Not all migration is in search of economic opportunity. Some stems from routine personal adjustments to marriage, widowhood, divorce, retirement from the labor force, or finding a better home for growing children. If the movement of war workers was a flash flood, this latter type is a persistent trickle that adds to the migratory stream, year in and year out.

This account of wartime migration will deal with shifts of civilians, omitting for the most part the 15,000,000 persons who were in the armed forces at one time or another during the period. Practically all of these military personnel became migrants by virtue of entering the service, and their forced movement involved much more than a translation in space. Many civilian migrants also found a different way of life in their new homes; but the two phenomena differ so radically in general that it is well to separate them. The moves of veterans before induction or after discharge will be included with the civilian shifts when possible.

Except when otherwise stated, a migrant is defined here as a person whose county of residence at the beginning of a period differed from his county of residence at the end of the period. Persons entering this country from abroad (either returning

<sup>1</sup> From the Bureau of the Census.

citizens or aliens) are not included nor are persons moving within a county.<sup>2</sup> Moves of persons born or dying during the period are omitted. Furthermore, our definition does not count the total number of intercounty moves during the period. One person may make a dozen such moves over a five-year period; and if he returns to his original county, he becomes a nonmigrant for the whole period. It is likely that if the number of migrants were determined by our definition each year for  $t$  years, the sum of the  $t$  numbers would be well in excess of the number of migrants determined by comparing an individual's county of residence at the base date and  $t$  years later. Thus, the impressively large numbers of migrants about to be cited actually are conservative.

#### EXTENT OF WARTIME MIGRATION

Even in terms of our simple operational definition, the number of wartime civilian migrants can be only somewhat roughly approximated from available data. A sample survey conducted by the Bureau of the Census in March, 1945, showed that 15,330,000 civilians were then living in a different county from that of their residence at the time of Pearl Harbor (December 7, 1941).<sup>3</sup> A study of wartime migration should cover also the five months from March, 1945, to V-J Day and probably the months of defensive preparation before Pearl Harbor. This figure is therefore lower than the one we desire.

A later sample survey taken in February, 1946, compared each civilian's county of residence then with that on April 1, 1940.<sup>4</sup> The base date is fairly satisfactory, but the terminal

<sup>2</sup> Among heads of households in the period from 1935 to 1940, intracounty movers were four times as numerous as intercounty migrants.

<sup>3</sup> United States Bureau of the Census: *Population—Special Reports*, "Civilian migration in the United States: December, 1941, to March, 1945." Series P-S, No. 5. Sept. 2, 1945. This survey included an estimated 2,000,000 veterans who had been discharged by March, 1945, of whom many were in the armed forces at the time of Pearl Harbor and probably qualified as intercounty migrants; but it did not cover the 1,300,000 civilians in institutions, a large proportion of whom had not yet entered the institution at the base date.

<sup>4</sup> United States Bureau of the Census: *Population—Special Reports*, "Internal migration in the United States, 1940 to 1946." Series P-S, No. 11. December 6, 1946.

date is six months after V-J Day (August 14, 1945). The number of civilians whose county of 1946 residence differed from their county of 1940 residence was 19,500,000.<sup>5</sup> From cross-classifications with migration status for the period from August, 1945, to February, 1946, and with veteran status, estimates may be made of migration status for the period from April, 1940, to August, 1945. The details are too involved to present here, but according to the assumptions chosen, I have obtained a low estimate of 16,400,000 and a high estimate of 18,200,000 for all civilians. The medium estimate is 17,200,000, or 13 per cent of the 1940 population of the United States. Again, this number represents the number of persons who were living as civilians on V-J Day in a different county from that of their residence in April, 1940.

It seems to be almost impossible to extract from the wartime data the annual fluctuations in the number of migrants. We cannot tell in which war year intercounty migration reached a peak.<sup>6</sup> It seems likely that migration was heavy in all years. As will be shown below, some groups tended to move later than others.

One can readily show, however, that wartime migration was heavier than migration during the quinquennium just before the war. For the period April, 1935, to April, 1940, there were about 14,000,000 intercounty migrants. My low estimate (16,400,000) for the 1940-to-1945 period—only four months longer—is appreciably greater than this; and the medium estimate is greater by 3,200,000. The difference may not represent as much stimulation of internal migration by the war as many people think occurred. It should be noted in this connection,

<sup>5</sup> Although 2,210,000 of these had been in the armed forces at some time during the period, very few were in the armed forces on April 1, 1940. Thus, practically all the indicated moves were made by civilians.

<sup>6</sup> WPA surveys taken in 1941 found that in-migration to forty-one of the chief defense centers was accelerating. See Myers, Howard B.: *Defense Migration and Labor Supply*, *Journal of the American Statistical Association*, March, 1942, xxxvii, No. 217, pp. 69-76.

According to estimates prepared by the Bureau of Agricultural Economics, the peak rate of off-farm migration was reached in 1942. See Bureau of Agricultural Economics' *Farm Population Estimates, United States and Major Geographic Divisions: 1910-1946*.

however, that about 13,000,000 persons in the most mobile ages were excluded by definition from the wartime estimate of *civilian* migrants.

Wartime shifts of the civilian population tended to represent longer moves than those in peacetime. Of the migrants for the period 1941 to 1945, 51 per cent moved from one state to another, rather than within a state. For the longer period from 1940 to 1946, the corresponding percentage was 59. By comparison, for the peacetime years from 1935 to 1940, a minority—46 per cent—of the migrants moved between states. The WPA surveys previously noted found that the average migrant to defense centers in 1940–1941 traveled only 125 miles.<sup>7</sup> Migrants to California cities, however, spanned much greater distances. Those into the Los Angeles area averaged nearly 1,300 miles.

#### ORIGINS AND DESTINATIONS OF MIGRANTS

*Regions.* The record of the origins and destinations of wartime civilian migrants is rather fragmentary. We have approximate, sample data on the interregional exchanges of civilian population between December, 1941, and March, 1945. There was a total of 3,800,000 interregional migrants. The West had a net gain of 1,160,000, to which the two Northern regions and the South contributed. All three of these other regions suffered a net loss. The South had a net loss of 340,000 to the North (that is, the North Central States and the North-eastern States combined). Counter movements were relatively large so that gross interregional shifts were well above the net ones. (See Figure 1.)

Within regions, however, there was a tremendous heterogeneity among states and counties with respect to the net migration rate. Some consistent patterns, however, are discernible in the statistical tables and maps.

*States.* Estimates of net migration by states for the period from April, 1940, to November, 1943, have been computed by

<sup>7</sup> Myers, *op. cit.*; pp. 74–75.

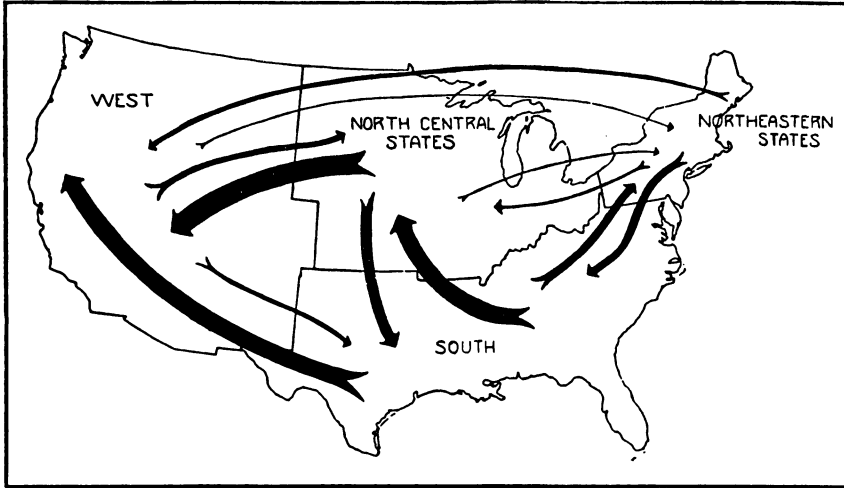


Fig. 1. Interregional migration in the United States, 1941-1945.

Hope T. Eldridge from vital statistics, statistics of inductions into the armed forces, and estimates of civilian population, which last were based mainly on ration-book registrations.<sup>8</sup> The states with net in-migration were chiefly located on the East or West Coast or the Great Lakes. Along the Atlantic Coast, gains were registered from southern New England through Virginia and in Florida. These eight states and the District of Columbia gained about 1,200,000. Ohio, Indiana, Illinois, and Michigan in the East North Central States gained about 700,000; and the Pacific Coast States plus Nevada, Utah, and Arizona gained 1,900,000. California alone gained 1,400,000. The states between the Rocky Mountains and the Mississippi River together with the states south of the Ohio and Potomac Rivers (except Virginia and Florida) had a net out-migration of about 2,700,000.

Most of the "gaining" states could be characterized as industrial, whereas most of the "losing" states were primarily agricultural. Three notable exceptions were New York, Pennsylvania, and West Virginia, which had large net out-migrations.

*Counties.* More insight into the relationship between migra-

<sup>8</sup> United States Bureau of the Census: *Population—Special Reports*, "Interstate migration and other population changes: 1940 to 1943." Series P-44, No. 17, August 28, 1944.

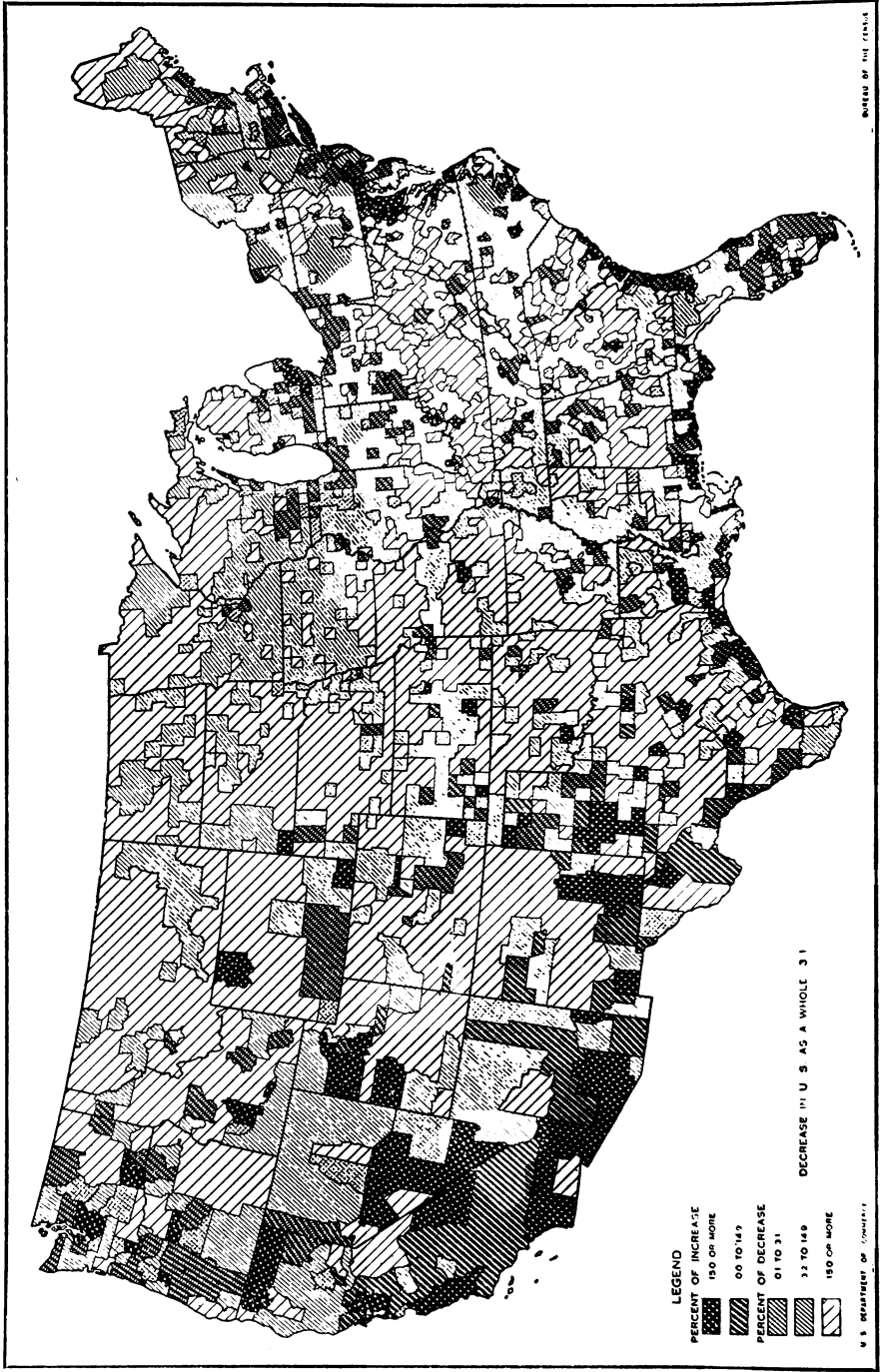


Fig. 2. Estimated per cent change in civilian population, by counties April 1, 1940 to November 1, 1943.

tion and type of area may be obtained at the county level. It was not feasible to compute net migration for each of the 3,100 counties over the period from April, 1940, to November, 1943. Instead we shall simply examine the percentage of change in the civilian population.<sup>9</sup> Population change is only a rough index of net migration because of intercounty variations in rates of natural increase and in contributions to the armed forces. Nevertheless, large gains and losses must reflect net in and out-migration, respectively. (See Figure 2.)

The civilian population decreased by 3.1 per cent in the country as a whole. Only about one-seventh of the counties experienced any increase in their civilian population. Of these, 152, or about 5 per cent of all counties, increased by 15 per cent or more. These 152 were chiefly counties containing important centers of war activity; forty-three were metropolitan counties. In only six states (Arizona, California, Connecticut, Delaware, Maryland, and Rhode Island) did a majority of the counties have an increase in civilian population. Counties of apparently high in-migration were dotted along the coast line and represented ports and centers of ship-building. Another important type of area was that in which aircraft, tanks, and other military vehicles were manufactured. Munitions plants such as powder mills, and particularly the sites of atomic bomb production, tended to be located in less populous and more isolated counties. Several of such counties had meteoric spurts in civilian population growth. The last important type was the county with military installations, which for historical and strategic reasons were also well scattered about the country.

The combined metropolitan counties had an increase of 2.2 per cent in civilian population between April, 1940, and November, 1943, whereas other counties lost 8.5 per cent. Even among the 137 metropolitan areas,<sup>10</sup> fifty-five lost civilian

<sup>9</sup> United States Bureau of the Census: *Population—Special Reports*, "Estimated civilian population of the United States, by counties: November 1, 1943." Series P-44, No. 3. February 15, 1944.

<sup>10</sup> Approximations on a county basis to a metropolitan district. A metropolitan county is one having 50 per cent or more of its 1940 population in a metropolitan district. A metropolitan area comprises one or more metropolitan counties.

population. Those that increased because of in-migration were chiefly in the South and West. Some large and old industrial areas like New York, Boston, and Pittsburgh did not have net in-migration during the war.

*Residence Area.* Preliminary sample data on the urban or rural residence of the civilian noninstitutional population in July, 1945, are compared with figures for the census date in the following table:

*Civilian Noninstitutional Population*

<i>Residence Area</i>	<i>1945</i>	<i>1940</i>	<i>Per Cent Change</i>
Total	125,880,000	130,323,000	- 3.4
Urban	74,040,000	73,830,000	+ 0.3
Rural-Nonfarm	25,750,000	26,428,000	- 2.6
Rural-Farm	26,090,000	30,065,000	- 13.2

Since inductions into the armed forces exceeded natural increase, the static size of the urban civilian population indicates net in-migration. Thus the evidence for counties and urban and rural areas shows that, on the whole, wartime internal migration served to concentrate our population even further. War contracts tended to go to the local areas that were already most developed industrially.

The nationwide sample survey of migration for the period December, 1941, to March, 1945, also dealt with shifts in residence from farm to nonfarm and vice versa. An estimated 5,400,000 civilians moved from farms to cities and other nonfarm areas.<sup>11</sup> In the other direction, there was a shift of 2,500,000 civilians from nonfarm areas to farms. Thus, in the exchange, the farm population had a net loss of approximately 2,900,000.

These movements include intracounty as well as intercounty changes of residence. The type of move was tabulated in cross-classification with shift in farm or nonfarm residence for civil-

<sup>11</sup> United States Bureau of the Census: *Population—Special Reports*, "Shifts in farm population: December, 1941, to March, 1945." Series P-S, No. 6. October 29, 1945.



ians 14 years old and over only. In this age group, only 40 per cent of those moving from farms to nonfarm areas were inter-county migrants. Furthermore, a minority of such migrants crossed state lines. Distances spanned by youths and adults moving to farms were similar to these. Thus, shifts between farms and nonfarm areas tended to represent movement over rather short distances. Conversely, the highest proportion of migrants and the highest proportion of interstate migrants were found among persons who lived in nonfarm areas at both dates.

*Congested Production Areas.* From special sample censuses conducted in ten of the more important Congested Production Areas, in 1944, we have information concerning the origins of their in-migrants.<sup>12</sup> These areas were defined in terms of counties approximating metropolitan districts and comprised the Puget Sound, Portland-Vancouver, San Francisco Bay, Los Angeles, and San Diego areas on the West Coast; the Detroit-Willow Run and Muskegon areas near the Great Lakes; and the Hampton Roads, Charleston, South Carolina, and Mobile areas in the South.

There were 2,500,000 civilians living in these areas in 1944 who had moved in since 1940. They constituted 27 per cent of the combined 1940 populations. There was a tendency for a larger proportion of in-migrants to the western areas to come from outside the state, outside the geographic division, and outside the region. Cases here are few and the measure of distance spanned is a rough one; but the more numerous studies made by WPA, in which distances were given as average mileages, lead to the same general conclusion. Long-distance migration was from east to west. This situation is partly explained by the paucity of intervening opportunities for migrants to the West Coast. Moreover, this area in addition to its economic attractions and its climate, has a glamorous appeal to people in the rest of the country.

The in-migrants to the five Congested Production Areas on

<sup>12</sup> United States Bureau of the Census: *Population*, "Characteristics of the Population, Labor Force, Families, and Housing.—Congested Production Area: March to June, 1944." Series CA-3, Nos. 1 to 11.

the West Coast included 20 per cent from the West North Central Division and 16 per cent from the West South Central Division. The Dust Bowl in these same areas had contributed hundreds of thousands of distress migrants during the 'thirties. The "push" factor of drought abated considerably, but mechanization of agriculture and high human fertility continued to create a potential surplus of people. Booming shipbuilding and aircraft construction on the Pacific Coast were great additions to the previous "pull" factors. A similar process took place between the Detroit-Willow Run area and the East South Central Division. The latter has long been a labor reservoir for the former's automobile industry, and between 1940 and 1944 contributed 23 per cent of its in-migrants.

Only 15 per cent of all the in-migrants to the ten Congested Production Areas came from farms. In the West, former farm residents constituted only from 7 to 18 per cent of all in-migrants from elsewhere in the state, but they constituted from 13 to 19 per cent of in-migrants from outside the state. These interstate migrants from farms were characteristically from the Great Plains. In the Charleston and Mobile areas, on the other hand, a larger proportion of intrastate than of interstate migrants came from farms. These areas had a relatively larger disadvantaged farm population in their own hinterland to draw upon.

*Succession Migration.* To quote Myers again: "In most defense centers, however, fewer than 10 per cent of the migrants are farm workers. Even in the South, the proportion is seldom as high as 15 per cent.

"Defense centers thus far have secured their workers primarily from urban areas. Most of the rural migrants have come from villages; the proportion from the open country is very small."<sup>13</sup>

Yet during the war, the volume of migration from farms to nonfarm areas was the largest in American history. These persons moving away from farms went a relatively short dis-

<sup>13</sup> Myers, *op. cit.*: p. 74.

tance, but we do not have an adequate summary of their destinations. The available evidence suggests, however, that most of the movers away from farms went to villages and the less active urban centers to fill the vacuum left by the departure of migrants from these areas to metropolises and the more active urban centers and by the induction of workers into the armed forces.

Of the 6,480,000 employed workers in March, 1945, who had migrated since the Japanese attack on Pearl Harbor, 1,530,000 were found in the munitions industries and 550,000 were employees of Federal, state, or local governments, where the demand for labor was most critical. The remainder may represent largely the "replacement" type of migrants who moved later to fill vacuums left in industries of intermediate activity. It seems likely, therefore, that wartime shifts in the civilian population were in accord with the well-known "law" of Ravenstein.

It has already been stated that the war accelerated internal migration in the United States. On the whole, however, wartime migration flowed through the same major channels as had been used in the previous twenty years. In an article by Eldridge and the writer,<sup>14</sup> it is shown that the pattern of net gains and losses by states during the war had high positive correlations with the patterns in earlier periods. There were notable exceptions, of course, but the relative size of the net in or out-migration tended to persist from one period to another.

#### CHARACTERISTICS OF WARTIME CIVILIAN MIGRANTS

During the early period of defensive preparation, the WPA surveys found that, among workers migrating to defense centers, white males were overrepresented on the basis of their proportion in the labor force. Migrants were young and tended to be either single men or married men who had left their families behind. As the war progressed, however, the situation changed in some particulars.

<sup>14</sup> Shryock, Henry S., Jr. and Eldridge, Hope Tisdale: *Internal Migration in War and Peace. American Sociological Review*, February, 1947, xii, No. 1, pp. 29-37.

During the period from Pearl Harbor to March, 1945, inter-county migration was predominantly female. The proportion of women even among migrant workers was slightly more than among all workers. Female migrants had become proportionately more numerous as the war went on for two reasons: (1) Millions of young men were taken from the civilian labor force into the armed forces and women workers were needed in the resulting tight labor market; (2) despite the housing shortage in war production centers, wives managed to rejoin their migrant husbands or to move with them.

Of the 2,000,000 migrants 15 years old and over into the ten Congested Production Areas between 1940 and 1944, 1,300,000, or 65 per cent, were married with "spouse present." Seventeen per cent of the migrants were under 15 years of age. These facts point to a large amount of family migration. (We cannot tell from our data how often the whole family moved together and how often the head moved first.) Although there was this large volume of family migration, the fact remains that the *proportion* of migrants was highest among unattached persons. Among lodgers in private households and persons in hotels, dormitories, and institutions, most of whom were not living with relatives, 44 per cent were migrants.

Reference has already been made to the relative youth of migrants. For the period from 1940 to 1946, the median age of migrants was 31 years, as compared with 36 years for nonmigrants who were born before the beginning of the period. The rate of migration was highest for persons 20 to 24 years old, 24 per cent of whom were migrants. The rate was lowest for elderly persons.

In the prewar quinquennium, the percentage of migrants in the nonwhite population was 8.5 as compared with 12.3 per cent in the white population. As long as jobs were scarce, prospects in new places remained relatively unattractive to members of the nonwhite races. It was certainly not a coincidence that in 1941 Negroes were underrepresented among migrants to defense production centers but were overrepresented among

the unemployed migrants there. The tightening manpower situation stimulated the migration of nonwhites. For the period 1941 to 1945, the percentages of migrants in the white and nonwhite populations 14 years old and over were about the same.

In the Northern and Western Congested Production Areas, the rate of growth of the Negro civilian population from 1940 to 1944 far exceeded that of the white. (In most of these areas, it is true, there were relatively very few Negroes in 1940.) In the three Southern areas, on the other hand, the rate of growth of the Negro population was less than that of the white. These differences in rates of population growth arose largely from differences in in-migration rates.

Almost one-third of the Negro in-migrants into the Detroit-Willow Run area came from the East South Central States, about one-quarter came from the South Atlantic States. Negroes coming into the Southern Congested Areas moved rather short distances, on the average. Almost all came from the South, and from 80 to 90 per cent came from the geographic division in which the area was located. In the Hampton Roads area, however, a larger proportion of Negroes than of whites came from outside the State. North Carolina was presumably a heavy contributor. Likewise the special census of Wilmington, North Carolina, found that between 1940 and 1946, Negroes more often than whites came from outside the State. South Carolina contributed almost half of the Negro in-migrants. There were probably many such movements of Negroes northward along the Atlantic Coast to the nearest industrial area. From 30 to 40 per cent of Negro in-migrants into these southern industrial areas were on farms in 1940—larger percentages than among the white in-migrants.

Even as early as 1941, it was found that the average migrant was bettering his economic position. Despite the unguided nature of these early movements, there was little unemployment among migrant workers in defense centers. Many new workers were lured into the labor force and found jobs, and

occupational upgrading of experienced workers was frequent. We can be sure that incomes were increased too. Later in the war period, unemployment had ceased to be an important problem for any group of workers, migrant or nonmigrant.

Despite these economic gains, the lot of the migrant was often a hard one. The hearings before the Tolan Committee and the journalistic exposés of Agnes Meyer, for instance, depict the crowded, substandard housing; the lack of sanitary facilities; the inadequate schools and play-space for children; and the strained transit systems in the boom towns. Migration itself was an arduous process because of our overburdened railroads, bus lines, and transfer companies. Finally, the temporary separation of families created difficulties and unhappiness.

#### PERMANENCE OF WARTIME MIGRATION

Of the estimated 17,000,000 civilian migrants between April, 1940, and V-J Day, only 1,200,000 had returned to their county of 1940 residence at the end of the first six months of peace. Gallup polls and other surveys have shown that most wartime migrants to selected centers of war production want to stay on in their new homes and are sinking social and economic roots there. From a few specialized areas like Richmond, California, and Wilmington, North Carolina, where shipyards have closed, many migrants have already departed.<sup>15</sup> Most of the war production centers, however, need a large labor force to produce the capital and consumer goods that are now in such great demand. These areas offer higher levels of living than do the ones from which most migrants came. They are, by and large, the areas that attracted migrants during the 'twenties and 'thirties. It should be emphasized again that part of the wartime migration represented the release of a flow that was dammed up by

<sup>15</sup> In April, 1946, a special census was taken in Wilmington, N. C. During the war a large shipyard was built in this City, from which 243 hulls were launched. The yard had already laid off most of the workers and was preparing to close, but nevertheless 28 per cent of the City's population were found to be in-migrants since April, 1940. The percentage at the peak of activity must have been considerably higher.

the depression. It would probably take another severe depression to send a large number of the wartime migrants back whence they came. Meanwhile, new and progressive migration has taken place at a high rate during the reconversion period. Between V-J Day and February, 1946, there were 3,900,000 intercounty migrants who either had not moved between 1940 and V-J Day or moved in both periods but had not returned to their 1940 county of residence. It is a good bet that many of them have gone to the young metropolitan areas of the West and South.