

Postwar Economic Perspectives

II. Prewar Experience: The Labor Force and Employment

By W. S. Woytinsky*

This article is the second of several summarizing results of a study of possible postwar economic trends, undertaken as a means of evaluating the setting for planning social security measures. Following articles will consider the projection of prewar experience in terms of production and consumption and will analyze the possible effects of the war on work opportunities and economic trends. As in all BULLETIN material, any expression of opinion reflects the views of the author and not necessarily an official position of the Social Security Board.

AT FIRST SIGHT, prewar experience gives a disheartening outlook for full employment after this war. Toward the end of March 1940, 7.6 million persons in the United States were unemployed (2.5 million on public emergency work, 4.3 million experienced workers without jobs, and 800,000 new workers seeking their first jobs). Moreover, the country was then no longer at the depression low. In terms of national income, recovery had been nearly completed by 1936, when national income reached \$65.2 billion at average 1935-39 prices. This amount, in fact, was near the 1929 peak (\$68 billion), somewhat higher than in 1928 (\$64.8 billion), and more than half again as much as in 1932, the lowest year of the depression (\$41.6 billion).

Yet 14.4 percent of the workers were unemployed in 1940 (including persons engaged in relief work projects), which indicates that work opportunities were about 10 percent less than would be wanted to employ the available labor force after allowance of 4-5 percent is made for frictional temporary unemployment.

Why should the situation be different after the war, once the deferred demand of consumers has been satisfied? With the wartime increase in the labor force, will the postwar demand for labor be large enough to absorb not only the current additions to the working population but also prewar unemployment? What are the promises of full employment after the war in terms of national income,

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production, and consumption? What are the chances of an economic equilibrium on a level high enough to absorb the available labor force?

This article handles the first question—the probable changes in supply of and demand for labor from 1940 to 1950. The following article will consider the projection of prewar experience in terms of production, consumption, and economic equilibrium.

The Year 1940 as a Bench Mark

Before we try to compare the hypothetical labor-market conditions in 1950 with the pattern of 1940, it appears advisable to recall the particular conditions that dominated our economy before the outbreak of World War II.

When the 1940 census was taken, the Nation was recovering from the brief but sharp recession of 1938. That recession has never been explained satisfactorily. It has sometimes been considered as a deflationary contraction caused by the decline in Federal expenditures in 1937. Yet that cut was very small. The changes in Federal expenditures, in millions of dollars, were as follows:

| Fiscal year ended June 30 | Expenditures |
|---------------------------|--------------|
| 1935----- | \$7, 583 |
| 1936----- | 9, 069 |
| 1937----- | 8, 281 |
| 1938----- | 7, 304 |

Federal expenditures in the fiscal years 1937 and 1938 were still in excess of ordinary receipts; the budgetary deficit was \$3,253 million in 1936-37 and \$1,450 million in 1937-38. Furthermore, the gross national product rose from \$70.8 billion in 1935 to \$81.7 billion in 1936 and to \$87.7 billion in 1937. This rise seems to indicate that

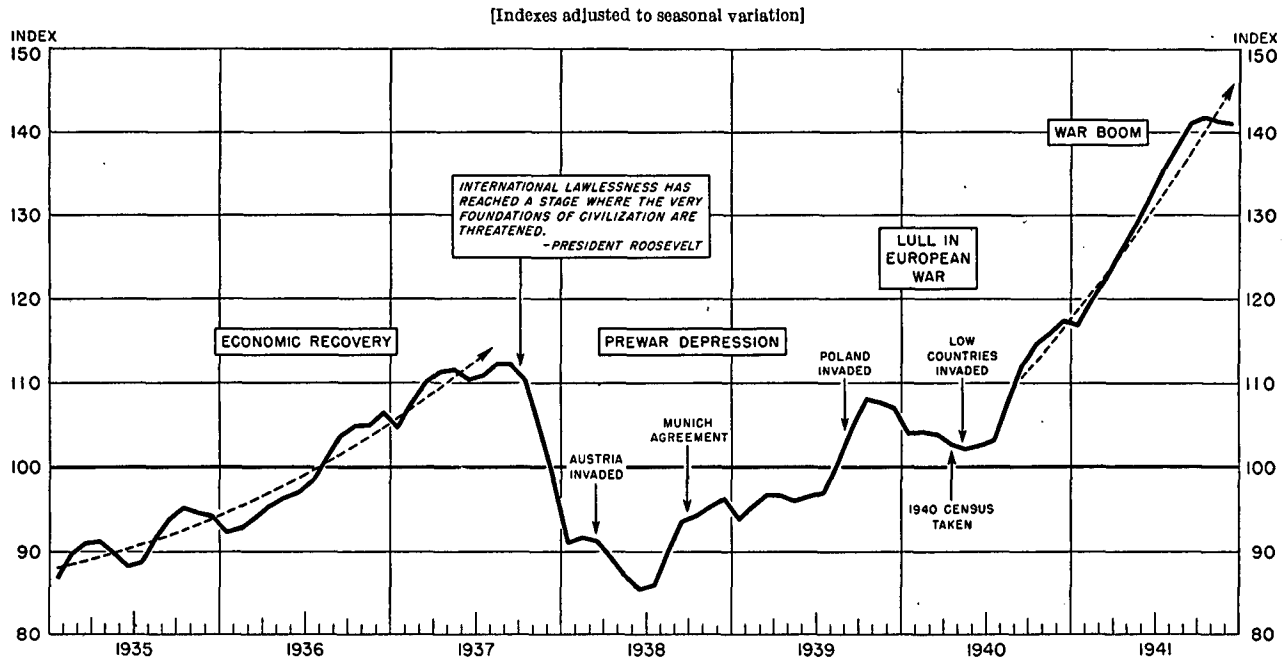
Federal expenditures, increased to meet the emergency of the great depression, might have been cut down without setting a deflationary spiral in motion. It therefore appears unlikely that the moderate reduction of Federal expenditures could have caused a contraction of employment and production even more violent than that in the winter of 1929-30.

In retrospect, the recession of 1937-38 appears to have been essentially a prewar depression, similar to that in 1914-15 (chart 1). The world was living in expectation of a general conflagration. War was already flaring in Spain, Africa, and the Far East. In his Chicago speech on October 5, 1937, President Roosevelt warned the Nation that "the present reign of terror and international lawlessness" has "reached a stage where the very foundations of civilization are threatened." The role of this country in the coming war was uncertain, and the disturbing effect of this uncertainty was aggravated by increasing social tensions, evidenced by the sit-down strikes in the summer of 1937 and their repercussion on the business community.

In these circumstances, the rise in production and employment which had proceeded since the spring of 1933 came to a standstill. The decline in 1938 reflected the progressive deterioration of the international situation: seizure of Austria by the Germans, the threat to Czechoslovakia and Poland, the desperate attempts of France and Great Britain to exorcise the danger and stop the avalanche without resorting to force. After Munich, which seemed to have cleared the situation, employment in production of durable goods went up while employment in nondurable-goods industries continued to decline. The recession in 1938 in the United States paralleled deterioration in business conditions in Great Britain, Canada, Poland, Denmark, the Netherlands, Sweden, Norway, and Switzerland, while a boom of rearmament was gaining momentum in Germany, Italy, and Japan.

As in 1914-15, the prewar depression was characterized by considerable ups and downs in the volume of economic activity. After a sudden drop in 1938, employment and production in the United States rose steadily in 1939; the economic system adjusted itself to the conditions of

Chart 1.—The progress of recovery: Indexes of factory employment and manufacturing production, January 1935–December 1941



the post-Munich world with the prospect of a war far from American shores. It is not clear whether, and to what extent, this recovery was accelerated in the last quarter of 1939 by the actual outbreak of war in Europe, which foreshadowed munitions orders from Great Britain and France and rearmament of the United States. Early in 1940, however, when the lull of the "phony war" developed in Europe, the business barometer again fell rapidly, industrial production and factory employment went down, and unemployment began again to rise. When the 1940 census was taken, factory employment was about 10 points below the level it had reached in 1937, before the outbreak of the prewar depression.

In brief, the 1940 census was taken at a time when the volume of economic activity was far below the trend of recovery as it was in progress before the winter of 1937-38. After the invasion of the Low Countries by Germany, the defense program was initiated and our economy shifted from the prewar depression to a war boom. The decline in the early part of 1940 was offset by expansion of production later in the year, and, for 1940 as a whole, industrial employment, production, and national income were probably not far from what they would have been if there had been no war.

The level of unemployment at the time of enumeration, however, was obviously affected by the prewar depression, aggravated during the lull in the European theater. Without these disturbing factors, employment in March 1940 might have been several million higher and unemployment several million less than the figures recorded by the census. Therefore 7.6 million should not be considered as the "normal" volume of unemployment in prewar America after the depression of the 1930's.

Moreover, the census figure for unemployment includes 2.5 million persons on emergency work projects. All these persons were unemployed in the sense that they were able and willing to work and could not find jobs in private industry. Some of the relief work projects, however, were of types that might have been carried out by means of a regular public works program which would have increased the reported number of regular jobs in the Nation.

With allowance for these two factors, the deficiency of jobs in comparison with the supply of labor in March-April 1940 can hardly have exceeded 4 or 5 million. The net deficit, apart from normal frictional unemployment of 2.0 or 2.5 million, was between 2.0 and 2.5 million. For the spring of 1933, the comparable figure probably was between 10 and 12 mil-

lion. Except for the disturbing influence of the war, we would have been very near the goal of prosperity and full employment by the spring of 1940.

The problem of full employment in postwar America boils down to the question whether, after the liquidation of the "international lawlessness" denounced by the President in October 1937, the United States will resume normal peacetime economic expansion.

Postwar as Compared With 1940 Labor Force

The first step in analyzing perspectives of full employment in, say, 1950 is to visualize the probable size and distribution of the labor force. Changes in its size will reflect two major factors: the "normal" growth of the labor force from 1940 to 1950, and the probable deviations from this trend because of the emergency expansion during the war. Changes in the distribution of the labor force will result chiefly from the internal migration and occupational shifts of workers during the war.

Normal Growth, 1940 to 1950

Estimates of the future normal labor force depend on two projections: one for total population, the other for the proportion of workers in each sex and age group. For trends in total population, the generally accepted

Table 1.—Labor force in 1930 and 1940 and percent of workers in population, 1900, 1920, 1930, and 1940, by sex and age group

| Sex and age (years) | Labor force ¹ (in thousands) | | Percent of workers in population | | | | |
|---------------------------|---|--------|----------------------------------|------|------|--------------------------------------|------|
| | | | Reported as gainful workers | | | Reported in labor force ¹ | |
| | 1930 | 1940 | 1900 | 1920 | 1930 | 1930 | 1940 |
| Male, 14 years and over | 37,008 | 40,284 | | | | | |
| 14-19 | 2,795 | 2,619 | 63.6 | 52.6 | 41.1 | 40.1 | 35.4 |
| 20-24 | 4,747 | 5,035 | 91.7 | 91.0 | 89.9 | 88.8 | 88.5 |
| 25-44 | 17,498 | 18,817 | 96.3 | 97.2 | 97.4 | 95.8 | 95.6 |
| 45-64 | 10,173 | 11,954 | 93.3 | 93.8 | 94.0 | 91.0 | 89.4 |
| 65 and over | 1,795 | 1,859 | 68.3 | 60.1 | 58.3 | 53.9 | 42.2 |
| Female, 14 years and over | 10,396 | 13,015 | | | | | |
| 14-19 | 1,591 | 1,395 | 26.8 | 28.4 | 22.8 | 22.8 | 19.0 |
| 20-24 | 2,316 | 2,688 | 32.1 | 38.1 | 42.4 | 41.8 | 45.6 |
| 25-44 | 4,404 | 6,107 | 18.1 | 22.4 | 25.4 | 24.6 | 30.6 |
| 45-64 | 1,842 | 2,550 | 14.1 | 17.0 | 18.7 | 18.0 | 20.1 |
| 65 and over | 243 | 275 | 9.1 | 8.0 | 8.1 | 7.3 | 6.0 |

¹ Labor-force figures for 1930 and 1940, adjusted for differences in classification and enumeration, as given in *Sixteenth Census of the United States: 1940, Population—Comparative Occupation Statistics . . . 1870 to 1940*, 1943, p. 13.

estimates are those developed by Thompson and Whelpton for the National Resources Planning Board.¹ Estimates of the future "propensity" to work in various groups of the population are more controversial.

The available census data (table 1) indicate that the proportion of men at work in ages 25-44 has been fairly stable; the ratios for younger and older age groups have declined, slowly for the groups aged 20-24 and 45-64, more steeply for those aged 14-19 and 65 and over. The proportion of working women has been increasing in all groups in the ages 20-64 and has declined in groups below and above those ages. The ratios for 1950 in the third column of table 2 are obtained by a freehand extrapolation of these trends.²

This projection indicates a "normal" labor force of 58.3 million³ in 1950 as compared with the "adjusted"

¹ Thompson, Warren S., and Whelpton, P. K., *Estimates of Future Population of the United States, 1940-2000*, National Resources Planning Board, 1943.

² Essentially these ratios were presented by the author at a round table conference held in connection with the 266th meeting of the National Industrial Conference Board, January 18, 1945. See Woytinsky, W. S., "Techniques of Income Projection," in National Industrial Conference Board, *Measuring and Projecting National Income*, p. 7. (Studies in Business Policy, No. 5).

³ This estimate is somewhat lower than that prepared by John D. Durand for the Bureau of the Census because of differences in the assumed proportion of working women in various age groups. (Bureau of the Census, "Normal Growth of the Labor Force in the United States: 1940 to 1950," *Population—Special Reports, Series P-44, No. 12, June 12, 1944.*)

labor force of 53.3 million on April 1, 1940. Roughly, it is anticipated that from 1940 to 1950 the "normal" labor force will increase by 5 million or 9.4 percent—a smaller increase than in the preceding decade, when that increment was 5.9 million or 12.4 percent, according to the census.

Emergency Expansion

Assuming that the "normal" labor force will increase by 5 million from 1940 to 1950, the rise from 1940 to 1945 may be estimated at 2.5 million. Under peacetime conditions, therefore, we would have had a labor force of approximately 55.8 million on April 1, 1945. The war, however, brought into the labor market several million persons who otherwise would not have been there. Many youngsters had left school to take a job, while many women shifted from housework in their own homes to office or factory work. Some few persons found their way back to work after temporary retirement, and others stayed in jobs longer than would have been possible except for the general shortage of labor. Many handi-

capped persons—or persons whom employers considered handicapped—got an opportunity to prove their ability or to acquire new skills. In April 1945, 51.9 million persons were in the civilian labor force and an additional 12.1 million were in military service. Active manpower, including the armed forces, thus totaled 64 million—about 8 million more than the normal labor force would have been at that time on the basis of the 1940 census.

Table 2.—Estimate of "normal" labor force in 1950

| Sex and age (years) | Population ¹ (in thousands) | Labor force | |
|--------------------------|--|-----------------------|-----------------------------|
| | | Number (in thousands) | Percent of total population |
| Total, 15 years and over | 107,371 | 58,310 | ----- |
| Male | 53,180 | 43,204 | ----- |
| 15-19 | 5,367 | 1,836 | 34.2 |
| 20-24 | 5,853 | 5,168 | 88.3 |
| 25-44 | 21,689 | 20,691 | 95.4 |
| 45-64 | 15,057 | 13,371 | 88.8 |
| 65 and over | 5,214 | 2,138 | 41.0 |
| Female | 54,191 | 15,106 | ----- |
| 15-19 | 5,227 | 795 | 15.2 |
| 20-24 | 5,717 | 2,773 | 48.5 |
| 25-44 | 22,278 | 8,020 | 36.0 |
| 45-64 | 15,259 | 3,204 | 21.0 |
| 65 and over | 5,710 | 314 | 5.5 |

¹ Thompson, Warren S., and Whelpton, P. K., *Estimates of Future Population of the United States, 1940-2000*, National Resources Planning Board, 1943, pp. 48-49.

The emergency workers numbered 6.7 million in April 1944, according to estimates of the Bureau of Labor Statistics, and were distributed as shown in table 3.

The classifications in this table partly overlap one another, as indicated by "Mostly" in the description. For example, the group of women aged 20-24 includes some who shifted to work from college; the group of women aged 35-64 includes not only married women with no young children but also some women with children and some single women from

Table 3.—Emergency war workers in April 1944

| Workers | Description | Number (in millions) |
|-----------------------|--|----------------------|
| All groups | Normally students, housewives, retired persons or others not working or seeking work in paid employment. | 6.7 |
| Boys and girls, 14-19 | Mostly from school and college | 2.8 |
| Young men, 20-24 | Mostly from college | .5 |
| Young women, 20-24 | Mostly service wives | .4 |
| Women, 35-64 | Mostly married women with no young children | 1.5 |
| Men, 25-54 | Mostly from the "fringes" of the labor market | .7 |
| Men, 55 and over | Mostly persons who have postponed retirement | .8 |

Source: *Monthly Labor Review*, August 1944, p. 270.

the "fringes" of the labor market. For a tentative estimate of the origin of emergency war workers, the figures in table 3 may be reclassified as follows:

| Emergency war workers | Number (in thousands) | | |
|---|-----------------------|-------|--------|
| | Total | Male | Female |
| Total..... | 6,700 | 3,700 | 3,000 |
| Young workers, from school ¹ | 3,270 | 2,200 | 1,070 |
| Aged workers ² | 450 | 420 | 30 |
| Married women: | | | |
| Service wives..... | 600 | | 600 |
| Other..... | 1,200 | | 1,200 |
| Marginal workers..... | 1,180 | 1,080 | 100 |

¹ Males under 25, females under 20, in table 3.

² 65 years and over, in table 3.

About half of the emergency war workers have been young persons who, under normal conditions, would have attended school or college. Probably only a few of them will resume formal education after what, for most of them, has been an interruption of several years. The labor surplus they represent is largely self-liquidating, however, because each young worker ceases to be an "emergency worker" as soon as he reaches the age at which he would normally have entered the labor force.

The long-range trend toward increase in school attendance in the age group 15-19 years, reversed by the recruitment of boys and girls for jobs and for military service, will probably be resumed after the war, and the number of youngsters entering the labor force may drop for a period of several years far below the "normal" 1.2 million boys and 600,000 girls a year. Growth in the rate of school attendance will probably be accelerated and recruitment of young workers slowed down by the special facilities provided for veterans and—to some extent—by war savings that will permit many families to give their children higher education.

The group of aged persons also will rapidly cease to be a part of the surplus labor force. According to the Bureau of Labor Statistics, in April 1944 the surplus labor force included 450,000 persons 65 years old and over. The number may have increased since that date, because emergency workers who have reached age 65 probably have outnumbered the old people who have withdrawn from work. After termination of their wartime jobs, aged workers will have increasing dif-

ficulty in finding new employment, and some of those now in peacetime production will lose their jobs as younger workers become available.⁴ The exodus of aged workers from the labor market may extend over a year or more, keeping pace with the rising requirements of employability. All in all, if 1950 is assumed to be a "normal" postwar year, employment of aged persons will have returned by that time to the "normal" pattern.

In April 1944, the emergency workers included 700,000 men in the ages 25-54, classified in table 3 as on the "fringes" of the labor market; most of the men aged 55 and over who had postponed retirement and some of the female emergency workers belong to the same group. In all, this marginal group may comprise more than a million persons; it is estimated tentatively at 1,180,000, including 1,080,000 men and 100,000 women.

The common characteristic of these persons is that they would not have met usual requirements of employability before the war but found work when requirements were lowered. Most of them will drop out of the labor force as standards of employability return to prewar levels. This process may continue for a year or more after demobilization is completed, but it is not likely that employability requirements will be much lower in 1950 than in 1940. It is generally believed, however, that slightly handicapped individuals who have proved their abilities or acquired new skills during the war may remain in the labor force, not necessarily in the group of marginal workers.

Some of the married women who found their way into office or factory jobs during the war will remain in the labor force. According to the Bureau of Labor Statistics, the total number of married women workers increased from 3,919,000 in April 1940 to 6,790,000 in April 1944. The number of married working women in the ages 20-64 increased by 2.7 million, in round numbers. Of this total, 800,000 represent the increase in the population and 1.9 million the net number of married women who would not have

⁴ This statement does not refer, of course, to the aged workers who would have been in the labor force under normal conditions but only to those who have found work during the war, when standards of employability were lowered.

been in the labor force, under normal conditions.

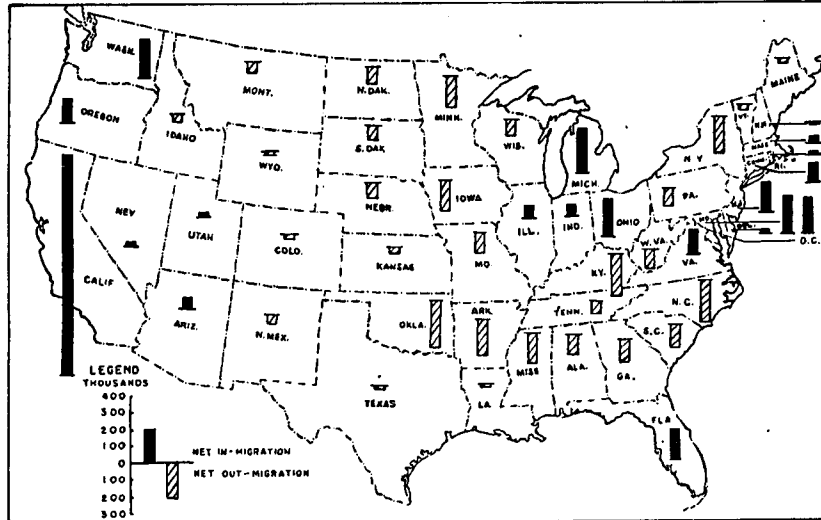
In April 1944, according to the Bureau of Labor Statistics, working married women included 1,380,000 wives of men in the armed forces. Of these, many would have been in the labor force under normal conditions, and only the 600,000 service wives classified above as war emergency workers are likely to withdraw after their husbands return. The projection of the "normal" labor force allows for a rise in the number of working women in ages 25-64 from 8.7 million in 1940 to 11.2 million in 1950. This "normal" increment of 2.5 million may include hundreds of thousands of women who took their first jobs during the war emergency.

To sum up, most of the emergency war workers represent a temporary and self-liquidating surplus in the labor force. With a few exceptions, such as slightly handicapped workers and married women without children, the postwar labor force is likely to return gradually to the prewar pattern.⁵ Allowance should be made, however, for the possibility of a minor—and perhaps temporary—surplus resulting from wartime recruits. On the other hand, the postwar labor force will be curtailed by military casualties and by the return of ex-servicemen to college. It is possible that loss and gain will offset each other, so that the size of the labor force will be determined by its natural growth alone and any deviation in 1950 from the "normal" size (58.3 million) would fall within a margin of error of the computation. To be on the safe side, an estimate of the actual labor force as of April 1950 may be slightly raised in comparison with the hypothetical "normal" labor force, say from 58.3 million to 58.8 million.

Because of seasonal factors and natural growth of the population during a calendar year, the average labor force through the year 1950 will probably be somewhat larger than the number at the end of the first quarter

⁵ Similar conclusions have been expressed by Clarence D. Long (*The Labor Force in Wartime America*, National Bureau of Economic Research, January 1945, p. 65); Karl T. Schlotterbeck (*Postwar Reemployment: The Magnitude of the Problem*, Brookings Institution, 1943, pp. 11-15); and Rufus S. Tucker ("Projections of National Income," *The Conference Board Business Record*, December 1944-January 1945, pp. 3-10).

Chart 2.—Net civilian migration, by State, 1940-43



Source: Bureau of the Census.

of that year. The Census monthly surveys of the civilian labor force from April 1940 through June 1945 seem to indicate the following typical deviation of the average monthly figures from the figure for the end of March or the beginning of April (in thousands):

| | | | |
|---------------|--------|----------------|--------|
| January..... | -600 | July..... | +3,700 |
| February..... | -500 | August..... | +3,200 |
| March..... | -400 | September..... | +1,600 |
| April..... | +500 | October..... | +1,200 |
| May..... | +1,300 | November..... | +700 |
| June..... | +3,000 | December..... | +200 |

According to this trend, the annual average labor force is about 1.2 million higher than on April 1. If this pattern is applied to 1950, the labor force in that year would average 60 million—an increase of 5.5 million or about 10 percent in comparison with 1940.

Changes in the Distribution of the Labor Force

Apart from long-range trends, distribution of the labor force in 1950 will differ from the prewar pattern because of interstate migration of war workers and servicemen, on the one hand, and because of occupational shifts combined with industrial and military training, on the other.

Internal Migration

The census has estimated that civilian migration from April 1940 to November 1943 resulted in net gains totaling 3.7 million for 19 States (including the District of Columbia) and net losses totaling 3.4 million for 30

States (chart 2). The movement was from the primarily agricultural central and southern areas, westward to the Pacific Coast, northward toward the Great Lakes region, and toward the northern and southern sections of the Atlantic Coast, so that areas which lost population through migration represent on a map a solid block surrounded on the west and on the east by States with net gains.

The effect of these migrations on the postwar labor market will depend largely on the extent to which they differ from the long-range trends in the geographic redistribution of our population. Comparison of interstate migration in 1940-43 with that in 1930-40 is not conclusive because that decade was marked by the deepest depression in our history. The set-back was particularly severe in areas that specialized in production of capital goods, and their relative decline may have affected the direction and volume of internal migration. It is advisable, therefore, to compare the pattern of internal migration in 1940-43 with that in 1920-30 as well as in 1930-40.⁶ In 29 States the direction of net migration was the same in all three of these periods, and in 14 States migration during the war followed the pattern of the 1920's, which had been reversed in the 1930's

⁶ See Woytinsky, W. S., "Internal Migration During the War," (processed release of the Bureau of Employment Security, Nov. 27, 1944); "Migrant War Workers and Reconversion," Supplement to *IAPES News* (International Association of Public Employment Services), December 1945.

by the depression. Five industrial States gained population in the 1920's and during the war but lost population in the 1930's; 8 States, most of them predominantly agricultural, lost population from 1940 to 1943 as well as in the 1920's, but registered gains in the 1930's. In brief, internal migration during the war followed the pattern characteristic of an expanding economy.

Demobilization of the armed forces is likely to cause further shifts of the population, essentially in the same direction. A survey made by the Army suggests that about 80 percent of the officers and enlisted men intend to return to their native State, 10 percent intend to move to another State, and 10 percent are undecided.⁷ Assuming that half the last group return to their homes and half move elsewhere, and applying the same distribution to the men in the Navy, it is possible that from 1.5 to 2 million servicemen will change their State of residence. In some areas, especially in the Northeast, the migration of veterans may offset the wartime civilian migration. Essentially, however, the two currents move westward (chart 3), and returning veterans may increase by, say, 600,000-800,000 the net gain of population in the Pacific region and the loss in the Southern and Northeastern States.

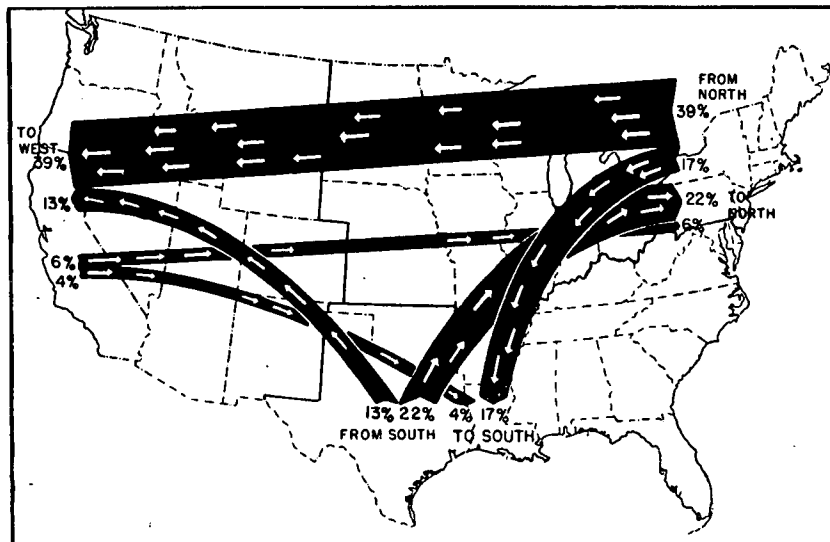
Postwar economic developments will determine whether and to what extent war migration will represent a national asset or liability. If a major postwar depression develops, wartime shifts of population will represent dislocations and will make it more difficult for the economic system to adjust to a low level of activity. If the United States enters into an era of prosperity, the expansion will be facilitated by the wartime shifts of the population toward areas which led in war production as they had led before in production of machinery and other capital goods and which are ready to resume that role.

In certain communities and regions, wartime migration may create serious, though temporary, difficulties. The hard core of the problem will probably be in the Pacific States. It is reasonable to expect, however, that these difficulties will be ironed out in the course of reconversion before 1950.

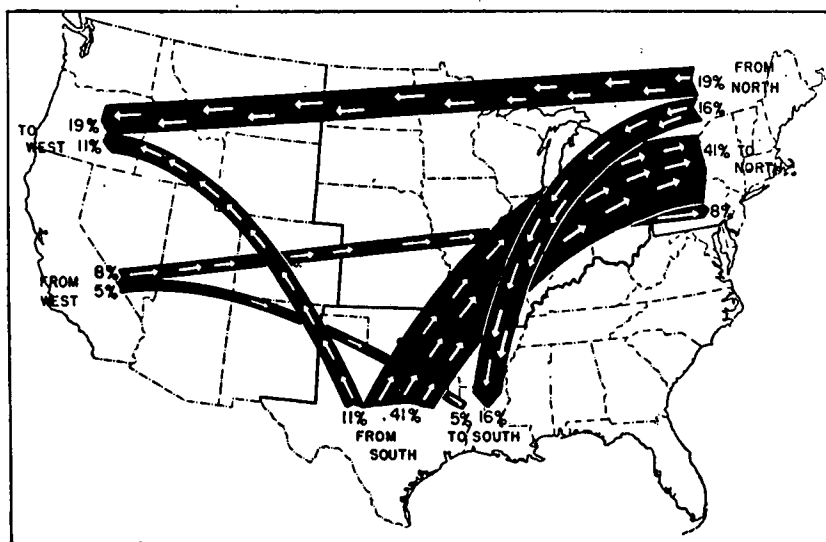
⁷ U. S. Army Service Forces, *What the Soldier Thinks, Post-War Plans of the Soldier*, 1945, pp. 3-5.

Chart 3.—Expected postwar migration pattern of enlisted men, by State and race

WHITE ENLISTED MEN
(WIDTH OF BAR REPRESENTS PERCENTAGE OF ALL WHITE MIGRANTS)



NEGRO ENLISTED MEN
(WIDTH OF BAR REPRESENTS PERCENTAGE OF ALL NEGRO MIGRANTS)



Source: U. S. Army Service Forces.

The net result of interstate migration of civilians and veterans will be to bring people to places where they have better chances for employment. Unless a major postwar slump occurs, both war and postwar migration will have the same end result as interstate migration in the past: *better* distribution of human resources over the continent.

Occupational Shifts

During the war many workers in the United States changed industry and occupation, like the Philadelphia lace

makers who shifted to charging fuses for torpedoes.

Training workers was a major problem early in the industrial mobilization, when the general trend was to upgrade workers from unskilled to semiskilled jobs, and from semiskilled to skilled work. Moreover, the classification of jobs changed under the impact of the war economy. Some highly skilled jobs were diluted, while comparatively simple operations were sometimes classified as skilled jobs to facilitate the recruitment of workers. The number and

proportion of foremen, craftsmen, and engineers increased greatly. Probably most workers in munitions industries received some kind of training or were upgraded.

On the other hand, war controls tended to increase the amount of clerical work in both governmental and private concerns, while the number of civilians in professional jobs declined because of the induction of professional persons and curtailment of college attendance.

It is not yet clear to what extent the training and upgrading of workers during the war will affect the future composition of the labor force by occupational level. The highly specialized training necessary for a particular munitions job may prove of little future use. Moreover, it is not clear whether well-paid jobs in munitions plants always required higher skills than the work in which the same workers had been engaged before the war. In many cases, higher wages were paid to war workers to induce them to change their customary occupation. Much of the problem of downgrading in the course of reconversion is therefore a problem of wages.

Perhaps, in the long run, the labor force will be affected more directly by the training of the men in the armed forces and their war experience. The special training and experience of men in the Corps of Engineers, the Navy, and the Air Force will be of particular value to the Nation. As a consequence of the war, the United States has at least a million men trained as pilots and air-navigators, 2 million men with naval experience and as many with other technical skills acquired in military service, and perhaps a million men with experience in leadership. Not all of them will be inclined to return to the jobs they held—or planned to hold—before the war. The extent of possible change in occupational distribution of ex-servicemen is illustrated by table 4, based on the Army surveys of postwar occupational plans of soldiers.

These surveys suggest that about three-fourths of the servicemen who previously held professional, semiprofessional, and managerial jobs intend to return to their prewar occupation. The ratio is about two-thirds for clerical and skilled workers, somewhat more than half among sales persons

and skilled workers, and less than half among unskilled laborers. Less than one-third of the former farm boys intend to return to employment on farms; most of them plan to become independent.

This trend reflects to some extent the usual rise of young workers to higher occupational levels.⁸ But the speed and rate of occupational improvement claimed or expected by servicemen naturally differ from what would be considered as normal under peacetime conditions. Not all soldiers will find the jobs to which they aspire, but most will return from war not only better men but also better workers.

Largely because of military training, the occupational pattern of the labor force after the war will probably differ from that of 1940 in the higher proportion of persons qualified for professional, semiprofessional, managerial, and skilled mechanical jobs.

Nearly one serviceman in five said he plans to work for himself. There will hardly be opportunity for so many to do so; vocational counselors of the Army are aware of this danger and stress persistently the risks of starting a business without experience and with insufficient financial backing. But there will be room for hundreds of thousands of independent businesses, and business loans under the GI Bill will encourage veterans to use these opportunities.

There were 3,060,000 nonagricultural business firms in the United States on September 30, 1929, and 3,304,200 on December 31, 1940.⁹ New opportunities had arisen in retail trade, the service industries, and transportation. Increase in population, development of new communities, and decentralization of metropolitan areas are likely to increase the number of firms to 3.5 or 3.6 million by 1950. Growth would be accelerated by the expansion of service industries and government encouragement of small business, and 3.8 or 4.0 million business firms in 1950 seem within the realm of probability.

Under the pressure of war, on the other hand, the current number of firms dropped sharply. On December 31, 1943, only 2,833,900 firms were in operation,⁹ and by July 1945 the num-

⁸ Woytinsky, W. S., *Labor in the United States, Basic Statistics for Social Security*, Committee on Social Security, Social Science Research Council, 1938, pp. 82-99.

⁹ *Survey of Current Business*, May 1944, p. 10.

Table 4.—Postwar job plans of white enlisted men who were employed before they entered the Army

| Last occupation | Percentage distribution by last occupation ¹ | Percentage distribution by plan for postwar jobs ² | | | |
|---|---|---|---------------------|------------------------|-----------------|
| | | All with definite plans | Work for employer | | Self-employment |
| | | | Prewar type of work | Different type of work | |
| All former employees..... | 100 | 100.00 | 57.50 | 23.75 | 18.75 |
| Professional, semiprofessional, managerial..... | 7 | 100.00 | 74.70 | 12.65 | 12.65 |
| Clerical..... | 21 | 100.00 | 65.40 | 21.80 | 12.80 |
| Sales..... | 19 | 100.00 | 52.50 | 22.50 | 25.00 |
| Skilled workers..... | 19 | 100.00 | 63.55 | 17.65 | 18.80 |
| Semiskilled workers..... | 30 | 100.00 | 53.85 | 28.20 | 17.95 |
| Laborers, except farm..... | 7 | 100.00 | 43.85 | 38.35 | 17.80 |
| Service workers..... | 3 | 100.00 | 55.40 | 20.50 | 24.10 |
| Agriculture..... | 13 | 100.00 | 29.25 | 14.65 | 56.10 |

¹ Excludes former students, those in Army before May 1, 1940, and nonclassified.
² Excludes men undecided as to employment status or as to type of work they will do and those planning to return to school on full-time basis.

Source: U. S. Army Service Forces, *Post-War Occupational Plans of Soldiers*, Mar. 1, 1945, Rept. No. B-129.

ber was probably between 2.7 and 2.8 million. Between VJ-day and 1950, therefore, perhaps a million independent jobs may open up.

To sum up, in 1950 probably the United States will have a labor force of approximately 60 million, 10 percent more than in 1940; the geographic distribution of workers will be favorable for expansion of regions specialized in production of capital goods; and the labor force will include a larger proportion of persons qualified for managerial and professional work and seeking independent positions.

Postwar as Compared With 1940 Employment

Assuming the preceding projections of the labor force, how many jobs will be needed to provide "full employment" in 1950, and what will be their probable distribution by industry?

Number of Jobs Required

Apart from the question of the size of the labor force after the war, discussed at the beginning of this article, the controversial factor in estimating the necessary number of jobs is the assumed extent of frictional transitory unemployment.

Karl T. Schlotterbeck has suggested that, even under generally favorable conditions, as many as 4 million persons may be out of work on the average over a period of years, and that 3 million is the hypothetical average under the most favorable conditions.¹⁰

¹⁰ Schlotterbeck, op. cit., p. 19.

A similar allowance for labor float after the war (4 million) has been made by *Fortune*.¹¹ On the other hand, Jacob L. Mosak¹² and the National Planning Association, following an estimate prepared by Loring Wood and Leonard Eskin,¹³ allow only 1.5 million for minimum frictional unemployment.

The last figure may be defended as "a reasonable peacetime goal." To reach this goal, however, the pattern of employment in the United States would have to change fundamentally; seasonal industries would have to be reorganized, the building industry and agriculture reshaped. Seasonal unemployment in the principal nonagricultural pursuits alone, averages 1.2 million through a year of intensive economic activity.¹⁴ This figure is increased 20-25 percent when allowance is made for water-transportation and related services, domestic service, and casual work. Thus 1.5 million is about the probable size of seasonal nonagricultural unemployment, without including agricultural workers or new workers hunting for their first jobs or the superannuated and handicapped workers on their way out of the labor market. That figure also excludes the

¹¹ "Transition to Peace," *Fortune*, January 1944.

¹² "Forecasting Postwar Demand: III," *Econometrica*, January 1945.

¹³ National Planning Association, *National Budgets for Full Employment*, April 1945, pp. 57-58 (Planning Pamphlets Nos. 43-44).

¹⁴ Woytinsky, W. S., *Seasonal Variations in Employment in the United States*, Committee on Social Security, Social Science Research Council, 1939, p. 92.

spells of unemployment of persons changing jobs and loss of employment after temporary disability, shift to another community, and the like.

Allowing 1.5 million for seasonal unemployment in nonagricultural industries, 250,000 for agriculture, 250,000 for entrance of new workers and reentrance of those who retired temporarily from the labor market, 250,000 for handicapped persons on their way out of the labor force, and 250,000 for all other causes of temporary unemployment, minimum frictional unemployment in 1950 may be estimated at 2.5 million, with the reservation that this figure is more likely to be too low than too high. This estimate is a little higher than that suggested by S. M. Livingston¹⁵ or E. E. Hagen and N. B. Kirkpatrick¹⁶ but lower than estimates of the Brookings Institution¹⁷ or Rufus S. Tucker.¹⁸

If 2.5 million is allowed for frictional unemployment, it appears that to enjoy "full employment" in 1950 the Nation should have about 57.5 million full-year jobs.

In the following projections, the armed forces in 1950 are estimated at 2 million. This figure may seem somewhat too high for normal postwar conditions but does not appear unreasonable for 1950.¹⁹ Deducting 2 million from the total of 57.5 million jobs needed to keep unemployment at the minimum 2.5 million leaves the number of required civilian jobs in 1950 as 55.5 million.

Demand for Labor

The future demand for labor may be estimated by comparing probable postwar employment in various industrial divisions with the prewar pattern. The following survey is largely illustrative. Some of the proposed

items are controversial, and a considerable range is allowed for their possible variation.

It is generally anticipated that *public employment*—by the Federal, State, and local governments—will increase. An estimate of 4.5 million in 1950 as compared with 4.1 million in 1940 is probably conservative. Expansion of public health services, of school systems, and of civil activities related to the national defense and the aftermath of war could readily bring the number of governmental jobs to 5 million.

The demand for *agricultural workers* in 1950 has been estimated at 8.0 million by Henry Wallace²⁰ and 7.5 million by the National Planning Association.²¹ Both figures are appreciably lower than the number in 1940 (9.2 million). Some students think that agricultural employment will decline somewhat more slowly. For the purpose of this study, the demand for agricultural labor in 1950 may be estimated at 7.5–8.2 million.

Opportunity for *independent work* or self-employment in nonagricultural pursuits, especially in trade, the service industries, and the professions, will probably be greater than in 1940. The number of proprietors, managers, and officials in nonagricultural industries has increased from 2.4 million in 1910 and 2.8 million in 1920 to 3.6 million in 1930 and to 4.0 million in 1940. At the same time the number of professional persons (which includes an appreciable proportion of independent workers) rose from 1.6 million in 1910 and 2.0 million in 1920 to 2.9 million in 1930 and 3.4 million in 1940.²² According to this trend and taking into account the more recent changes in the pattern of occupation, the number of independent nonagricultural jobs may rise from 5 million in 1940 to 6 or 6.5 million in 1950.

On the other hand, demand for *domestic employees* is likely to decline. In fact, many persons formerly engaged in domestic service shifted during the war to factory work and are unwilling to return to their prewar occupation. Moreover,

if wages of domestic employees are brought in line with those of industrial workers, many households will be compelled to give up hiring domestic help. The number of jobs in this field may drop from 2.5 million to 2.0 million.

The remaining demand for labor represents jobs in private industrial establishments.

It seems fairly clear that employment in *manufactures* will increase considerably, in comparison with the prewar pattern. Among numerous projections of such employment, that of the Committee for Economic Development seems to be most instructive. It rests on a survey taken among manufacturers and manufacturers' trade associations in the summer of 1945, when the war was approaching its end, and represents a summary of 1,674 single forecasts for 352 branches of production.²³

The survey indicates for 1947 a volume of manufacturing output (in terms of value at constant prices) 41.6 percent above the level of 1939, with a probable increase of employment in manufacturing industries by 34 percent, from 10.1 million to 13.5 million, excluding self-employed (independent) workers. With allowance for the growth of population and expansion of production from 1947 to 1950, an estimate of factory employment in 1950 at 14 million, as compared with 10.8 million in 1940, seems defensible.

No appreciable gain is expected in employment in *coal and ore mining*. It is assumed that this industrial division will require about 900,000 workers in 1950, the same as in 1940.

The number of jobs in *building construction* may readily double. According to a study prepared by the Bureau of Labor Statistics, the site employment in postwar new construction is estimated at 1.9 million man-years in the first postwar year, 2.7 million in the second year, 3.0 million in the third year, and 3.1 million in the fourth and fifth years.²⁴ The last figure would apply to our projection for 1950. Including repairs and maintenance work, the demand for labor in building construction is likely to be much higher. The estimate of 3.0 to

¹⁵ "Postwar Manpower and Its Capacity to Produce," *Survey of Current Business*, April 1943.

¹⁶ "The National Output at Full Employment in 1950," *American Economic Review*, September 1944.

¹⁷ Mayer, Joseph, *Postwar National Income*, Brookings Institution, Pamphlet No. 55, 1944.

¹⁸ "Projections of National Income," *The Conference Board Business Record*, December 1944–January 1945.

¹⁹ Assumptions for the size of the armed forces vary between 2 and 3 million in the best-known projections for full employment in 1950. See George, Edwin B., "Gross National Product Projections for Full Employment—II. Contrasting Estimates: Range and Reasons," *Dun's Review*, May 1945.

²⁰ Wallace, Henry A., *Sixty Million Jobs*, 1945, p. 27.

²¹ *National Budgets*, p. 63.

²² Bureau of the Census, *Sixteenth Census of the United States: 1940, Population—Comparative Occupation Statistics . . . 1870 to 1940, 1943*, p. 187.

²³ Committee for Economic Development, *American Industry Looks Ahead: A Business Estimate of Postwar Markets for Manufactured Goods*, 1945.

²⁴ *Monthly Labor Review*, July 1945, pp. 7–9.

Table 5.—Hypothetical distribution of the labor force and work opportunities in 1950

[Average for 12 months, in millions]

| | |
|--|-----------|
| Labor force, total..... | 60.0 |
| Frictional unemployment ("float")..... | 2.5 |
| Armed forces..... | 2.0 |
| Available for civilian employment..... | 55.5 |
| Work opportunities, total..... | 54.9-58.0 |
| Public employment (Federal, State, and local governments)..... | 4.5 |
| Private work opportunities..... | 50.4-53.5 |
| Agriculture..... | 7.5-8.2 |
| Independent nonagricultural work..... | 6.0-6.5 |
| Domestic service..... | 2.0 |
| Industrial employee jobs, total..... | 34.9-36.8 |
| Manufactures..... | 14.0 |
| Mines..... | .9 |
| Building construction..... | 3.0-3.4 |
| Transportation, communication, and utilities..... | 3.5-4.0 |
| Retail and wholesale trade..... | 8.0-8.5 |
| Finance, service industries, and miscellaneous..... | 5.5-6.0 |

3.4 million used here (as compared with 1.7 million in 1940) appears decidedly conservative.

The outlook in *transportation, communication, and public utilities* is not very clear. These industries employed 3.1 million persons in 1940 and are part of the most dynamic, speedily expanding sector of the economy. Possibly their demand for labor will rise in the same proportion as factory employment and will exceed 4 million by 1950; more conservatively, the figure may be 3.5 million.²⁵

²⁵ Wallace, Henry A., op. cit., p. 30.

Retail and wholesale trade employed 6.9 million workers in 1940, not including self-employed persons. It would employ about 8.3 million workers in 1950 if the demand for labor rises in about direct proportion to the amount of consumer goods to be distributed. For present purposes, the number of jobs in trade in 1950 is estimated at 8.0 to 8.5 million.

Finance, insurance, real estate, service industries, and professional pursuits employed about 4.5 million workers in 1940 and may employ one-third more in 1950. To be on the conservative side, their future demand for labor is set at 5.5 to 6 million.

Summarizing these estimates of work opportunities in 1950 (table 5), it appears that private industry will require from 50.4 to 53.5 million workers, while the labor force available for private employment will hardly exceed 51 million.

The cumulative margin of error for the total number of jobs may be wider than indicated in table 5. Since even the upper range of the figures cited, however, represents rather conservative assumptions, it appears that a sizable "deficiency" of jobs in 1950 is less probable than a general shortage of labor.

Further analysis may be based on the assumption that employment will be at some point between the high and low estimates and that the demand for labor will be approximately in balance with the available labor force.

Characteristic of the hypothetical distribution of work opportunities in 1950 in comparison with 1940 is the declining demand for labor in agriculture (7.5 to 8.2 million in 1950 as compared with 9.2 million in 1940) and in domestic service (2.0 million instead of 2.5 million) and a rise in almost all other industries, especially in manufactures (14 million instead of 10.8 million), building construction (3.0 to 3.4 million instead of 1.7 million) distributive trades (8.0 to 8.5 million instead of 6.9 million), government (4.5 million instead of 4.1 million), and independent nonagricultural pursuits (6.0 to 6.5 million instead of 5 million).

The trend is to a higher proportion of independent and skilled jobs and to expansion of mechanical trades. Both tendencies in the anticipated demand for labor are in harmony with the changes in the geographic and occupational distribution of the labor force.

Costs of Medical Care of Old-Age and Survivors Insurance Beneficiaries in St. Louis and 12 Ohio Cities

By Lelia M. Easson*

BENEFICIARIES under old-age and survivors insurance often face heavy medical charges, which use up their assets, cause them to seek aid from relatives, and generally deprive them of a satisfactory level of living. Information gathered from 1,544 beneficiary groups¹ surveyed in 12 Ohio middle-sized cities² and in St. Louis

between April and July 1944 (table 1) as part of a continuing study of the economic status of beneficiaries shows that the costs³ of medical care absorbed a larger proportion of the incomes of the aged beneficiaries than is devoted to this purpose by the average family. On the other hand, the widows and their dependent children

*Bureau of Old-Age and Survivors Insurance, Analysis Division.

¹The "beneficiary group" includes the primary beneficiary and spouse, or the widow and unmarried children under age 18 at home.

²East Liverpool, Elyria, Findlay, Lancaster, Lorain, Mansfield, Newark, Portsmouth, Springfield, Steubenville, Sandusky, Zanesville.

³Although all data represent charges rather than paid-for medical care, only a few had medical bills outstanding. For convenience, these charges are referred to interchangeably as costs, expenditures, or outlays. The costs of services of the practitioner, hospitalization, X-ray, physiotherapy, refractions, eye glasses, dental care, nursing care, and medical supplies are included.

appear to have had about the same health-cost experience as families in general. The cost of medical care was unevenly distributed among the beneficiary groups, some having no expenditures for this purpose and others spending relatively large amounts.

The reports of the cost of medical care received by the aged and survivor beneficiaries in the 12 Ohio cities and in St. Louis in 1943-44 may be considered reasonably reliable for the group studied. The beneficiaries discussed their medical outlays freely with the interviewers, inasmuch as the inquiry bore upon a subject which they felt confident could not be used to their disadvantage. They appeared to remember rather clearly the expenditures for doctors' bills and hospitalization, although the amounts spent for medical supplies were usually roughly estimated. The number of persons from whom data were collected provided a relatively satisfactory sample of aged persons and, to a lesser extent,