

Extent of Total Disability in the United States

by MARJORIE E. MOORE and BARKEV S. SANDERS*

IN AN ERA when the economic security of individuals and of families is recognized as of great national importance, any threat to that security merits detailed study. For this reason, information on the extent of disability in the United States and on the characteristics of the disabled assumes major significance—both as an aid in evaluating the economic implications of disability and as an index of the health of the population. Such information also provides a basis for planning programs—such as disability insurance and vocational rehabilitation—to meet the needs of disabled persons and their families.

The task of determining the number of disabled persons and their characteristics is not an easy one. The problem of defining disability for enumeration purposes, for example, is complicated by the fact that the aspects and concepts involved are many and varied. To some persons, disability means a marked physical or psychological deviation from what is accepted as normal; to others, it connotes inability to carry on usual pursuits—particularly gainful work. Another difficulty inherent in a precise enumeration arises from the fact that many persons are reluctant to report certain mental and physical conditions of themselves and of persons to whom they are closely related. The enumeration of disabled individuals who live alone and those who have no fixed abode or family membership also presents special difficulties.

To be widely useful, information on disability should reveal such facts as the total number of disabled persons in the population, the number with serious handicaps who continue work or other regular pursuits, the charac-

teristics of disabled persons, the nature and causes of the disabilities or handicaps from which they are suffering, the potentialities of the individuals as productive workers, and their earlier work history. No single inquiry can supply all the information needed. What is more, the picture changes from year to year and from area to area. As a result, there is a recognized dearth of exact information on disabling illnesses and conditions.

For years the National Health Survey, conducted by the Public Health Service in the winter of 1935-36, has been considered the most comprehensive source of information on illness and disability.¹ The Survey was carried on in 18 States and included data from 83 cities. The urban sample covered some 2.5 million individuals in more than 700,000 households. It did not provide, however, all the answers that are needed. More important, the Survey was carried out some 14 or 15 years ago in an economic setting that was far different, particularly as far as the labor market is concerned, from that of the present. A one-visit, house-to-house survey is, moreover, susceptible to many errors, and repeated canvasses are necessary to evaluate the size and nature of the errors. These considerations suggest the need of periodic attempts, perhaps varied in scope and content, to determine currently the extent of disability in the population.

Conscious of this standing need, the Division of Health and Disability Studies in the Bureau of Research and Statistics of the Social Security Board made arrangements in 1942 and 1943, first with the Works Projects Administration and later with the Bureau of the Census, to include special questions in connection with the *Monthly*

Report on the Labor Force to determine the number of persons in the canvassed households who were disabled for 1 or more days during the census week. Four such special monthly surveys were made—in May, June, and August of 1942 and in February of 1943.² In comparison with the National Health Survey, these monthly sample surveys were, of course, very limited. They were restricted to an enumeration of cases with current disability of 1 or more days in the census week; no attempt was made to obtain information on diagnosis or even the total prior duration of the disability. These monthly surveys had to be discontinued before there had been opportunity for experimenting as to ways in which the returns could be improved.

In 1949, three constituents of the Federal Security Agency³ combined their resources to utilize again the sampling facilities of the Bureau of the Census to obtain up-to-date information on the number of disabled persons. The Bureau conducts each month the Current Population Survey that provides, on a sample basis, national statistics on employment and unemployment. Although designed primarily to produce statistics on a current basis for the *Monthly Report on the Labor Force*, it is frequently used for making special surveys for a wide variety of purposes.

In the Current Population Survey made in February 1949, questions concerning disability were added to the regular schedule. The study was repeated in September 1950, when the same questions, definitions, and instructions were again used, but the

² Barkev S. Sanders and David Federman, "The Prevalence of Disability Recorded Through Four Monthly Sample Surveys," *Social Security Bulletin*, August 1943.

³ The Social Security Administration (the Bureau of Old-Age and Survivors Insurance and the Division of Research and Statistics in the Office of the Commissioner), the Office of Vocational Rehabilitation, and the Public Health Service.

*Miss Moore is a member of the Guidance, Training, and Placement Branch, Rehabilitation Standards Division, Office of Vocational Rehabilitation; and Mr. Sanders is a member of the Division of Research and Statistics, Office of the Commissioner, Social Security Administration.

¹ George St. J. Perrott, Clark Tibbitts, and Rollo H. Britten, "The National Health Survey: Scope and Method of the Nation-wide Canvass of Sickness in Relation to its Social and Economic Setting," *Public Health Reports*, September 15, 1939.

results will not be available for some time. This article, which is based on the survey made in February 1949, places special emphasis on cases of disability reported as having lasted 7 months or more.⁴

Survey Plan and Methodology

The population to which the Current Population Survey relates includes all civilians 14 years of age and over, living within the continental limits of the United States, except inmates of penal institutions; homes for the aged, infirm, and needy; mental institutions; and similar places. A survey staff is maintained in the field to obtain the information on employment status through personal interviews each month with a scientifically selected sample of households throughout the country.

The sample design.—The sample used for the Current Population Survey consists of about 25,000 households distributed throughout the United States in 68 areas.⁵ The particular sampling design is an application of the area sampling method, involving the use of specified sampling ratios, in which each unit (in this case, a household) in the population being sampled has a known chance of being included in the sample. Such a sample design yields estimates of the population with a known sampling error.⁶ In addition to errors due to sampling, there are also errors attributable to incorrect responses to the questions and to other circum-

stances that are inherent in disability surveys and that lead to underenumeration. Such errors are, however, present in a complete census as well as in a sample survey.

Disability survey questions.—The purpose of the disability survey was to obtain an estimate of the number of disabled persons in the civilian noninstitutional population 14–64 years of age, as well as information on such points as the duration of their disability, their sex and age, and their employment status before becoming disabled. It was thought, considering the size of the sample and the procedures and objectives of the *Monthly Report on the Labor Force*, that these were the only items on which sufficiently reliable information could be obtained. The cost of the added items was also an important limiting factor.

The regular schedule used to collect information for the *Monthly Report on the Labor Force* already provided some of the basic information desired, and four questions relating to disability were added to the February 1949 schedule.

As used in this study, disabled persons are those who, on the day of enumeration, were unable to do their regular work or perform other duties because of disease or injury, as well as those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all. Included within this definition are those persons who, except for their disability, would have been engaged in gainful work as members of the labor force, although the degree of their disability might not have been such as to prevent them from going regularly to school or doing housework in their own homes. Not included under this concept would be, for example, a man who, although he had lost two limbs as the result of an accident, was working on the day of the enumeration and had been working regularly for some time. This concept of disability was adopted because it appeared to be the most practicable and would encompass those persons with whom the sponsors of the study and many other groups are particularly concerned.

Duration of disability, as used in

this study, is the length of time preceding the day of the enumeration that the disabling condition had prevented the person from doing his regular work or performing other activities or had allowed him to work only occasionally or not at all. For example, a man who was not working on the day of enumeration because of blindness that had come on gradually over a period of about 3 years, but who had been unable to work for only the previous 7 months, would be classified as being disabled for 7 months and not for 3 years.

In conducting the survey, the enumerators completed all the items that make up the basic schedule. They then continued the interview by saying, "This month we are making a study of illness and disability," and proceeded to ask the supplementary questions. The enumerators had been instructed to ask these questions exactly as worded and were provided with explanatory and illustrative material to make the intent of the questions clear. The information collected on the basic schedule related to the survey week, the calendar week that contains the eighth day of the month; the supplementary questions on disability, on the other hand, related to the day of the enumeration, which is made during the week immediately following the survey week. The supplementary questions applied only to persons 14–64 years of age, since for older persons it is difficult to distinguish between inability to work because of a disabling condition and inability to work because of the natural process of aging. There are two other important reasons for restricting the survey to persons under age 65. Proposals for disability insurance deal with workers under age 65; and vocational rehabilitation by and large is concerned with younger persons, though there can be no fixed age limit.

The first supplementary question asked by the enumerators was phrased as follows: "First of all, I'd like to check the persons who aren't able to do their regular work or other duties today because of illness or disability." After recording the information secured in response to this question, the enumerator asked, "Is there anyone else under 65 years of

⁴Data for duration of disability were recorded to the nearest whole unit. Therefore, the term "7 months or more" includes durations of 6 months, 16 days, and longer.

⁵For a detailed description see Morris H. Hansen and William N. Hurwitz, *Sampling Methods Applied to Census Work*, Bureau of the Census, 1946; Morris H. Hansen and William N. Hurwitz, "A New Sample of the Population," *Estadística*, December 1944; Edwin D. Goldfield, Joseph Steinberg, and Emmett H. Welch, "The Monthly Report on the Labor Force," *Estadística*, March 1948.

⁶For tables on the sampling variability of estimates of the number of the disabled see Theodore D. Woolsey, "Estimates of Disabling Illness Prevalence in the United States: Based on the February 1949 Current Population Survey," *Public Health Reports*, February 10, 1950.

Table 1.—Estimated number of disabled persons,¹ the percentage disabled, and the percentage distribution by duration of disability of disabled persons in the civilian noninstitutional population aged 14–64, by employment status during the survey week,² February 1949

[Figures are estimates derived from a sample survey and are therefore subject to sampling variability that may be relatively large in the case of the smaller figures and the small differences between figures]

Duration of disability ³	Total	In labor force			Not in labor force				Other
		Total	Em- ployed	Unem- ployed	Total	Keep- ing house	In school	Unable to work	
Total number (in thou- sands).....	4,569	1,609	1,425	175	2,969	1,230	189	1,206	345
Percentage disabled.....	4.72	2.78	2.62	5.70	7.56	4.26	2.34	100.0	31.77
Percentage distribution									
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 week or under.....	24.8	35.4	37.4	18.3	19.0	34.0	69.3	0.2	4.1
Over 1 week to 1 month.....	15.1	23.1	23.8	17.1	10.8	17.5	8.5	1.7	20.3
Over 1 month but under 4 months.....	8.6	9.6	10.1	5.7	8.1	8.7	4.2	4.9	18.6
4 months but under 7 months.....	5.4	5.0	4.6	8.0	5.6	4.6	2.6	5.2	12.2
7 months to 18 months.....	8.9	6.1	4.9	15.4	10.4	6.6	2.6	12.9	19.7
Over 18 months but under 10 years.....	22.5	14.2	12.9	25.7	26.9	17.4	6.3	43.2	14.8
10 years and over.....	13.6	5.6	5.3	8.6	17.9	10.2	4.8	30.5	9.0
Duration not reported.....	1.2	1.0	1.0	1.1	1.3	1.0	1.6	1.4	1.4

¹ Persons who, on the day of enumeration, were unable to do their regular work or other duties because of sickness and disability, and those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all.

² Week containing the 8th of the month and imme-

diately previous to the week containing the day of enumeration.

³ Length of time before the day of enumeration that the disabling condition had prevented the person from doing his regular work or other activities or allowed him to work only occasionally or not at all.

age with a physical or mental condition that allows him to work only occasionally or not at all?"

For each person identified as disabled, the enumerator asked the duration of disability and whether or not the individual had been working before his disability. In general, "work" as used in these questions means working for pay or profit or without pay on a family farm or in a family business.

Limitations of the survey.—The evident limitations of the survey are presented briefly in the following paragraphs.

Since the survey was limited to the civilian noninstitutional population 14–64 years of age, a rather large segment of the disabled population was excluded.

The survey did not include persons, however seriously handicapped, who were and had been regularly working or carrying on such activities as going to school or doing their own housework; such persons were included, however, if the degree of disability was such as to prevent them from engaging in what would otherwise have been their normal activ-

ity—gainful work as members of the labor force—although not preventing them from engaging in such activities as going to school or doing their own housework.

Information on the cause and diagnosis of disability is not available from the survey. Moreover, the information on disability was secured from the member of the household who was being interviewed and not necessarily from the person who was disabled. Also, failure to report disability for one reason or another is to be anticipated, but the extent of non-reporting is, of course, indeterminate.

Finally, information for individual States and local communities is not available, since the sample was designed to provide estimates on a national basis only.

Disability of All Durations

Before intensive analysis is made of long-duration cases, it is of interest to consider briefly the findings with respect to all disability, whatever the duration.⁷

⁷ For a fuller analysis of cases of all lengths of duration, see Theodore D. Woolsey, op. cit.

The estimated number of persons in the civilian noninstitutional population aged 14–64, found on the day of the canvass to have been disabled for 1 day or longer, is shown by duration of disability in the following tabulation.

Duration of disability	Estimated number of disabled persons (in thousands)
Total.....	4,569
1 week or under.....	1,131
Over 1 week to 1 month.....	690
Over 1 month but under 4 months.....	395
4 months but under 7 months.....	246
7 months to 18 months.....	405
Over 18 months but under 10 years.....	1,027
10 years and over.....	622
Duration not reported.....	3

The total number of disabled persons was 4.6 million, representing 4.7 percent of the civilian noninstitutional population in the specified ages (table 1). About 54 percent of the 4.6 million had been disabled for less than 7 months, and in 45 percent of the cases the disability had lasted 7 months or more. For 1 percent of the cases, the duration of disability was not reported.

Persons in the labor force in the second week of February accounted for 1.6 million, or 35 percent of all disabled persons. The number and the proportion of potential workers among the disabled were, of course, substantially greater than this percentage indicates; at least 3.1 million of the disabled—68.9 percent of the total—were persons who had been engaged in gainful work immediately before their disability occurred.⁸

The proportion of disabled persons among the unemployed (5.70 percent) was over twice that among the employed (2.62 percent). The proportion of the disabled in the group keeping house (4.26 percent) was lower than that among the unemployed but nearly twice the proportion among employed persons.

The greatest concentration of short-duration cases of disability occurred among persons in school. Short durations also tended to predominate among the disabled who

⁸ There were, in addition, 71,000 disabled persons for whom work status before disability was not reported.

Table 2.—Estimated number of disabled persons,¹ the percentage disabled, and the percentage distribution by duration of disability of disabled persons in the civilian noninstitutional population aged 14-64, by age, February 1949

[Figures are estimates derived from a sample survey and are therefore subject to sampling variability that may be relatively large in the case of the smaller figures and the small differences between figures]

Duration of disability ²	Total	Age group					
		14-19	20-24	25-34	35-44	45-54	55-64
Total number (in thousands).....	4,569	387	364	650	797	1,044	1,330
Percentage disabled.....	4.72	3.12	3.20	2.86	3.93	6.17	10.16
Percentage distribution							
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 week or under.....	24.8	52.2	38.8	31.6	26.7	19.4	12.6
Over 1 week to 1 month.....	15.1	9.8	15.8	18.9	20.1	16.0	11.0
Over 1 month but under 4 months.....	8.6	6.2	11.2	8.0	9.0	9.4	8.1
4 months but under 7 months.....	5.4	3.0	3.8	3.8	6.5	5.2	6.6
7 months to 18 months.....	8.9	4.1	2.5	7.2	7.1	12.1	11.4
Over 18 months but under 10 years.....	22.5	6.9	11.2	18.1	18.7	25.3	32.6
10 years and over.....	13.6	17.5	15.8	10.9	10.9	11.4	16.5
Duration not reported.....	1.2	.5	.8	1.5	1.0	1.3	1.1

¹ Persons who, on the day of enumeration, were unable to do their regular work or other duties because of sickness and disability, and those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all.

² Length of time before the day of enumeration that the disabling condition had prevented the person from doing his regular work or other activities or allowed him to work only occasionally or not at all.

were classified as employed and those who were keeping house. On the other hand, half the disabled among the unemployed had been disabled for 7 months or longer. Most of those classified as "unable to work" had already been disabled for a rather long period of time—almost three-fourths of them for more than 18 months.

For the total civilian noninstitutional population 14-64 years of age the average time lost per person per year was 17.2 days.³ Persons in school showed only 8.5 days of disability per person per year. Those employed

³ Average number of days of disability per person per year is calculated (1) by multiplying the number of persons found disabled on the day of the canvass by 365 (on the assumption that the number of disabled persons is the same for each day of the year as on the day of the canvass) to obtain the estimated total number of days of disability in a year, and (2) dividing that product by the total number of persons in the population or in the segment of the population being considered. It may also be computed by multiplying the percentage disabled by 3.65. Since the survey was made in a winter month, the seasonal factors may make this average number of days lost per person higher than the true average for the year. High seasonal incidence increases the number of days of disability per person, even though it reduces average duration per disability case. This results from the fact that seasonal increases or decreases mainly affect the short-term disabilities; the very long duration cases are almost entirely free from seasonality.

had a slightly higher rate—9.6 days of disability per person per year; those keeping house had 15.5 days; and those unemployed, 20.8 days. The average number of days of disability for the group classified as "other" was 116.0, and for those unable to work, 365.

Table 2 gives the estimated number and the proportion of disabled

Table 3.—Estimated number of disabled persons,¹ the percentage disabled, and the percentage distribution by age of disabled persons in the civilian noninstitutional population aged 14-64, whose disability had lasted 7 months or more, by sex and race, February 1949

[Figures are estimates derived from a sample survey and are therefore subject to sampling variability that may be relatively large in the case of the smaller figures and the small differences between figures]

Age group	Disabled for 7 months or more ²								
	Total			White			Nonwhite		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total number (in thousands).....	2,054	1,271	783	1,772	1,143	629	282	128	154
Percentage disabled.....	2.12	2.70	1.57	2.02	2.67	1.40	3.14	3.05	3.21
Percentage distribution									
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14-19.....	5.2	5.1	5.4	5.1	4.8	5.7	5.6	7.7	3.9
20-24.....	5.2	5.3	5.1	5.5	5.7	5.1	3.9	2.3	5.2
25-34.....	11.5	11.5	11.5	11.0	11.3	10.5	14.4	13.1	15.5
35-44.....	14.2	13.0	16.3	13.6	12.8	15.1	18.2	14.6	21.3
45-54.....	24.7	23.9	26.0	24.9	24.6	25.4	23.5	17.7	28.3
55-64.....	39.2	41.2	35.7	39.9	40.8	38.2	34.4	44.6	25.8

¹ Persons who, on the day of the enumeration, were unable to do their regular work or other duties because of sickness or disability, and those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all.

persons in the population in the different age groups and, for each age group, the percentage distribution by duration of disability. The proportion disabled was lowest in the ages 25-34 years and rose rather sharply with increasing age. For those in the age group 55-64 the rate was 3.5 times that among those aged 25-34. Short periods of duration predominated among persons in the younger age groups, while among the older age groups the long durations predominated.

The average number of days of disability per person per year is shown for the different age groups in the following tabulation.

Age group	Average number of days of disability per person per year
Total, 14-64.....	17.2
14-19.....	11.4
20-24.....	11.7
25-34.....	10.4
35-44.....	14.3
45-54.....	22.5
55-64.....	37.1

On the average, persons in the age group 25-34 had the fewest days of disability, and from there on the number increased rather sharply with advancing age. For each of the two

age groups under 25, less than 30 percent of the average number of days of disability per person per year were accounted for by persons with disabilities that had lasted 7 months or more. In the age groups 25-34 and above, this percentage became increasingly higher—about 37 percent for the age groups 25-34 and 35-44, about 49 percent for the age group 45-54, and 61 percent for the age group 55-64—thus indicating the greater chronicity of disabling illness among the aged.

Disability Lasting 7 Months or More

The longer the period of disability, the greater become its disintegrating effects—the deterioration of basic skills, the loss of self-confidence, the increase in despondency—and the greater the economic loss. The findings of the survey as they relate to persons who on the day of the canvass had been disabled for 7 months or more—a rather generally accepted dividing line between so-called temporary and permanent disability—are therefore of particular interest.

It was estimated that, on the day of the canvass, 2,054,000 persons in the civilian noninstitutional population aged 14-64 years had been disabled for 7 months or more.¹⁰ When errors due to sampling are taken into consideration, there are about 95 chances out of 100 that a complete census would have enumerated between 1,890,000 and 2,220,000 persons who had been disabled for 7 months or more.

Sex, race, and age.—The extent of long-term disability, as defined in this study, was significantly¹¹ greater among the male than among the female population surveyed—2.70 percent of the men being reported as disabled for 7 months or more compared with 1.57 percent for the women (table 3). Likewise significant was

¹⁰ Estimates are based on those cases for whom duration was reported. Duration was not reported for about 1 percent of the 4.6 million disabled persons.

¹¹ Throughout the article the use of the term "significant" indicates that the appropriate statistical test has been made to determine whether or not the differences could be attributed to errors of sampling.

the difference between the percentage disabled among the white population (2.02 percent) and among the nonwhite population (3.14 percent). When both sex and race were considered, however, the results were somewhat different. In the white population, the percentage disabled was significantly greater among men (2.67 percent) than among women (1.40 percent), but in the nonwhite population, the percentage for women (3.21 percent) was slightly higher than that for men (3.05 percent), although not significantly so. A comparison of the prevalence of extended disability for white women with that for nonwhite women indicated that the percentage disabled was significantly greater for the latter. This difference may reflect the higher proportion of the nonwhite female population in the labor force. A similar comparison for the male population indicated that the slightly higher percentage found for the nonwhite men was not significantly different from that for the white men.

The percentage disabled for 7 months or more was smallest for the age group 14-19, increased slowly through the age group 35-44, and then rose sharply in the last two age groups, as shown in the tabulation in the next column.

Table 4.—Estimated number of disabled persons,¹ the percentage disabled, and the percentage distribution by age of disabled persons in the civilian noninstitutional population aged 14-64, whose disability had lasted 7 months or more, by sex and place of residence, February 1949

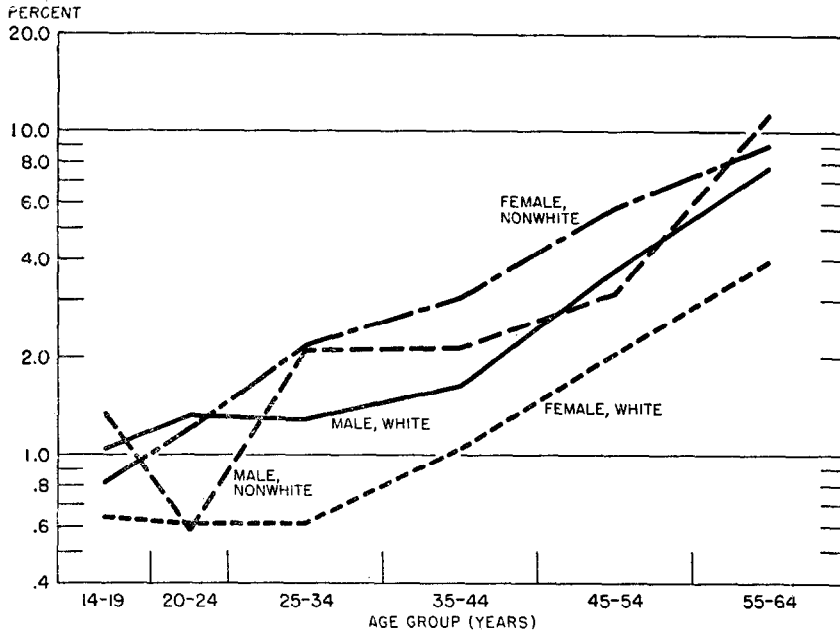
[Figures are estimates derived from a sample survey and are therefore subject to sampling variability that may be relatively large in the case of the smaller figures and the small differences between figures]

Age group	Disabled for 7 months or more ²								
	Urban			Rural-nonfarm			Rural-farm		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total number (in thousands).....	1,180	698	482	432	290	142	442	283	159
Percentage disabled.....	1.97	2.46	1.54	2.15	2.94	1.39	2.61	3.24	1.94
	Percentage distribution								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14-19.....	4.1	5.2	2.7	6.9	6.5	7.7	6.3	3.5	11.5
20-24.....	5.4	5.9	4.7	5.5	5.5	5.6	4.5	3.9	5.7
25-34.....	11.9	10.9	13.4	10.2	10.3	9.8	11.6	14.1	7.0
35-44.....	15.4	12.3	19.8	11.5	12.4	9.8	13.8	15.1	11.5
45-64.....	63.2	65.7	59.4	65.9	65.3	67.1	63.8	63.4	64.3

¹ Persons who, on the day of enumeration, were unable to do their regular work or other duties because of sickness or disability, and those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all.

² Length of time before the day of enumeration that the disabling condition had prevented the person from doing his regular work or other activities or allowed him to work only occasionally or not at all.

Chart 1.—Percentage disabled in the civilian noninstitutional population aged 14-64, whose disability had lasted 7 months or more, by age, sex, and race, February 1949



the age group 14-24, about 11-16 percent in the age group 25-34, and similarly on to the last age group, 55-64, which included from 26 percent to 45 percent of the disabled. The median ages of the disabled were 51.3 for the white men, 50.4 for the white women, 52.0 for the nonwhite men, and 46.5 for the nonwhite women.

Place of residence.—Long-term disability was somewhat less prevalent in urban areas than in rural areas; however, the trend was not as definite as that for race differences (table 4). When both sexes were considered together, without regard to age, the percentage disabled was significantly greater among persons in rural areas (farm and nonfarm combined) than among those in urban areas—2.36 percent compared with 1.97 percent. When the sexes were considered separately, it was found that only for the men was the percentage disabled in rural areas (3.08 percent) significantly greater than in urban areas (2.46 percent); the corresponding proportions for women were 1.63 percent and 1.54 percent. Relatively few rural women are recorded as being in the labor force, which may account for the fact that there is no significant difference for women.

The disability prevalence rate generally tended to be slightly higher in rural-nonfarm areas than in urban areas, and slightly higher in rural-farm areas than in rural-nonfarm areas. The rural-nonfarm rates, however, were not significantly different from the urban rates or from the rural-farm rates, and only for the men and for both sexes considered together were the rural-farm prevalence rates significantly different from the urban rates. The percentage disabled among women in all age groups in all three areas tended to be lower than the corresponding percentage among men; tests of significance between the rates, without regard to age, indicated that they were significantly lower for women than for men.

The pattern of the disability prevalence rates in the various age groups for men and for women in the different areas suggests that the differences observed between rural and urban rates may reflect in part the movement of persons in the population from one area to another—for example, the migration of able-bodied young men from rural to urban areas and the return to the rural community of persons who, after they became disabled, found competition difficult. Urban-rural differences in available

medical care and related services and in the extent of institutionalization of disabled persons may also contribute to the higher rural rates.

Employment status during survey week.—Nearly 80 percent of those reported to have been disabled for 7 months or more immediately before the day of enumeration were not attached to the labor force (table 5). Only 20 percent of the 2,054,000 disabled persons were classified as being in the labor force during the survey week—16 percent (329,000) as employed and 4 percent (87,000) as unemployed.

The fact that some persons were reported as disabled for 7 months or more and also reported as being in the labor force during the survey week is not necessarily inconsistent with the concept of disability as used in this study, since included in the definition of disability are those who, although working or looking for work during the survey week, had a disabling condition that permitted them to work only occasionally. Allowance must be made, however, for the large sampling error, the practice of the Bureau of the Census of including in the labor force all those with any work experience in the survey week, and the possible misunderstanding of the definition of disability as used in this study.

Persons classified as unable to work¹² represented 51 percent (1,046,000) of those disabled for 7 months or more, while those classified as keeping house represented a little more than 20 percent and those in school only slightly more than 1 percent. As many as 7 percent of those disabled for 7 months or more were included in the "other" category with respect to their labor-force status, no doubt because of the inclusion in this group of persons who did not indicate what they would have been doing had they not been ill.

The prevalence of long-term disability varied greatly from one employment status classification to an-

¹² Persons classified as permanently "unable to work" are those who because of long-term physical or mental illness or disability, such as blindness, loss of limbs, tuberculosis, or mental disorder, are unable to do any kind of work.

other. Almost 87 percent of those classified as unable to work in the civilian noninstitutional population aged 14-64 had been disabled for 7 months or more; the remaining 13 percent were those whose disability before the day of enumeration had lasted less than 7 months. The percentage disabled was significantly greater among those keeping house (1.46 percent) than among those classified as in the labor force—employed and unemployed—(0.72 percent) but was significantly less than among the persons in the unemployed segment of the labor force (2.83 percent).

Relatively fewer women than men in all the employment status classifications were disabled, but except for the prevalence among those keeping house the pattern was the same—the highest prevalence occurring among those unable to work and the lowest among those in school. A significantly greater percentage of the disabled men (27.7 percent) than of the disabled women (8.3 percent) were in the labor force. About 52 percent of the disabled women were classified as keeping house, while 36.3 percent were reported as unable to work.

Work status before becoming disabled.—The impact of prolonged disability on the labor force and on the employability of persons aged 14-64 is revealed in the results of the study as they relate to the work status of disabled persons immediately before the beginning of disability (table 6). Almost 73 percent (1,486,000) of the persons who had been disabled for 7 months or more prior to the day of enumeration had been attached to the employed labor force before becoming disabled. Of this group, 1,093,000 were men and 393,000 were women. The percentage of disabled men who had worked before becoming disabled (86 percent) was significantly greater than that for disabled women (51 percent). A similar relationship was evident in each age group. For the men, a little more than one-fourth of those in the two lower age groups worked before becoming disabled; almost three-fourths of the next age group (25-34) were working before their disability; and the proportion continued to increase through the top age group, where al-

Table 5.—Estimated number of disabled persons,¹ the percentage disabled, and the percentage distribution by employment status during survey week of disabled persons in the civilian noninstitutional population aged 14-64, whose disability had lasted 7 months or more, by duration of disability, February 1949

[Figures are estimates derived from a sample survey and are therefore subject to sampling variability that may be relatively large in the case of the smaller figures and the small differences between figures]

Employment status during survey week ²	Duration of disability ³								
	7 months or more			7-18 months			Over 18 months		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total number of disabled (in thousands).....	2,054	1,271	783	405	255	150	1,649	1,016	633
Percentage disabled in the population									
Total.....	2.12	2.70	1.57	0.42	0.54	0.30	1.70	2.16	1.27
In labor force.....	0.72	0.86	0.39	0.17	0.20	0.10	0.55	0.66	0.29
Employed.....	0.60	0.71	0.35	0.13	0.14	0.10	0.48	0.57	0.25
In agriculture.....	1.83	1.97	0.85	0.19	0.22	0	1.64	1.76	0.85
In nonagricultural industries.....	0.45	0.50	0.33	0.12	0.13	0.11	0.33	0.37	0.22
Unemployed.....	2.83	3.43	1.13	0.88	1.19	0	1.95	2.24	1.13
Not in labor force.....	4.17	14.96	2.17	0.78	2.82	0.41	3.39	12.14	1.77
Keeping house.....	1.46	25.00	1.43	0.28	5.56	0.27	1.18	19.44	1.15
In school.....	0.32	0.48	0.14	0.06	0.11	0	0.26	0.36	0.14
Unable to work.....	86.73	89.01	81.20	12.94	12.98	12.82	73.80	76.02	68.38
Other.....	13.81	15.67	7.60	6.26	6.70	4.80	7.55	8.97	2.80
Percentage distribution									
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In labor force.....	20.3	27.7	8.3	24.0	32.0	10.5	19.3	26.6	7.7
Employed.....	16.1	21.6	7.1	17.4	21.5	10.5	15.7	21.6	6.3
In agriculture.....	5.6	8.5	0.9	2.9	4.7	0	6.2	9.4	1.1
In nonagricultural industries.....	10.5	13.1	6.2	14.5	16.8	10.5	9.5	12.2	5.2
Unemployed.....	4.2	6.1	1.2	6.6	10.5	0	3.6	5.0	1.4
Not in labor force.....	79.7	72.3	91.7	76.0	68.0	89.5	80.7	73.4	92.3
Keeping house.....	20.4	0.7	52.4	19.9	0.8	52.0	20.6	0.7	52.5
In school.....	1.3	1.6	0.6	1.2	2.0	0	1.3	1.6	0.8
Unable to work.....	50.7	59.7	36.3	38.2	43.3	29.6	53.8	63.7	37.9
Other.....	7.3	10.3	2.4	16.7	21.9	7.9	5.0	7.4	1.1

¹ Persons who, on the day of enumeration, were unable to do their regular work or other duties because of sickness or disability, and those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all.

² Week containing the 8th of the month and immediately

previous to the week containing the day of enumeration.

³ Length of time before the day of enumeration that the disabling condition had prevented the person from doing his regular work or other activities or allowed him to work only occasionally or not at all.

most 98 percent worked before becoming disabled. This percentage for the top age group more nearly reflects the full effect of extended disability on the male labor force than does the 86 percent indicated above, since most of those who had not worked before becoming disabled probably had had no opportunity to do so. For the women, a similar sharp increase was evident, with slightly more than half those in the age group 25-34 having worked before becoming disabled; the percentage increased only slightly in each of the next two age groups, to 64 percent in the age group 45-54, and then declined in the last age group to only 48 percent.

The percentage distributions, ac-

cording to age, for those who had worked before disability and those who had not were markedly different for men but not so different for women. This difference is revealed by the median ages. The median age for men who had not worked before becoming disabled was 24.5, while for those who had worked it was 53.9; for the women the median age for those who had not worked before disability was 48.7, and for those who had worked it was 50.0. The wide differences in median age and in the age distribution for the two groups of men indicate that many of those who had no work experience before their disability were young persons whose disability probably either was congenital in origin or had occurred in

Table 6.—Percentage of disabled who worked before becoming disabled and percentage distribution by age of disabled persons¹ in the civilian noninstitutional population aged 14-64, whose disability had lasted 7 months or more, by sex and work status before becoming disabled, February 1949

[Figures are estimates derived from a sample survey and are therefore subject to sampling variability that may be relatively large in the case of the smaller figures and the small differences between figures]

Age group	Disabled for 7 months or more ²								
	Percentage of disabled in each age group who worked before disability ³			Percentage distribution by age					
				Worked before becoming disabled			Did not work before becoming disabled		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total.....	72.8	86.2	50.8	100.0	100.0	100.0	100.0	100.0	100.0
14-19.....	18.6	27.9	4.9	1.3	1.6	0.5	14.9	25.0	10.2
20-24.....	25.0	27.9	19.4	1.7	1.7	1.8	14.0	27.8	7.6
25-34.....	65.4	74.1	51.1	10.4	10.0	11.7	14.7	21.6	11.6
35-44.....	75.1	86.7	60.2	14.8	13.1	19.5	13.1	12.5	13.4
45-54.....	83.1	96.1	63.7	28.4	26.7	33.0	15.4	6.8	19.4
55-64.....	80.6	97.9	47.8	43.4	46.9	33.5	27.9	6.3	37.8

¹ Persons who, on the day of enumeration, were unable to do their regular work or other duties because of sickness or disability, and those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all.

² Length of time before the day of enumeration

that the disabling condition had prevented the person from doing his regular work or other activities or allowed him to work only occasionally or not at all.

³ Excludes 12,000 persons whose employment status before becoming disabled was not reported.

early youth before they reached working age.

Summary

Sickness surveys to determine the extent of disability and the characteristics of the disabled are needed to indicate the health status of the Nation and the need for measures designed to alleviate economic distress caused by the disability of workers. A sample survey was made in February 1949 to determine the number of disabled in the civilian noninstitutional population aged 14-64. The salient findings, subject to sampling errors, seasonal influences, and other inherent limitations of such a survey, were:

1. In February 1949 there were 4.6 million persons aged 14-64 who had been disabled for 1 day or longer. Disabled persons represented 4.7 percent of the civilian noninstitutional population in these ages.

2. Fifty-four percent of the 4.6 million persons had been disabled for less than 7 months, 45 percent for 7 months or more, and for 1 percent

the duration of disability was not reported.

3. For all disability, whatever the duration, the lowest percentage disabled was among those in school and the next lowest was among employed workers. Among unemployed workers the percentage disabled was more than twice that among the employed.

4. For all disability, whatever the duration, the percentage disabled was not much different in the age groups 14-34 but increased markedly for the older age groups, especially for those aged 45 and over.

5. Disability lasts longer among the aged. The estimated average number of days of disability per person per year was 10-12 days for persons aged 14-34 and more than 37 days for persons aged 55-64.

6. For disabilities lasting 7 months or longer, the percentage disabled was about 1 percent among those under age 35, and more than 6 percent among those aged 55-64.

7. About 2.1 percent of the civilian noninstitutional population aged 14-64 had been disabled for 7 months or longer. The proportion was higher

for men than for women; 2.7 percent of all men and only 1.6 percent of the women were reported as disabled for 7 months or more. The sex differences were apparent in each age group.

8. Comparisons by race indicated a higher proportion disabled for 7 months or more among the nonwhite population than among the white population—3.1 percent as against 2.0 percent. For the white population there was a markedly higher disability rate for men than for women. Among the nonwhite population the disability rate is somewhat higher for women than for men, though the difference was not statistically significant.

9. Disability rates varied by place of residence. In rural-farm areas the percentage disabled for 7 months or more was 2.6 percent; in rural-nonfarm areas, 2.2 percent; and in urban areas, 2.0 percent. Among women, however, this order is altered. The percentage disabled was lowest among the rural-nonfarm women and intermediate among those in urban areas.

10. Of those persons with disabilities that had lasted 7 months or longer, about 20 percent were reported in the labor force in the survey week. This proportion was relatively higher for men than for women—28 percent as compared with 8 percent. The group unable to work represented 51 percent of the total. Here again there was a marked difference in the sexes—60 percent of the disabled men and only 36 percent of the disabled women were classified in this category.

11. Seventy-three percent of those reporting disability lasting 7 months or longer had been engaged in gainful work before their disability. This percentage was about 86 percent for men and 51 percent for women; it was lowest for persons under 20 years of age and increased progressively with age. The increase with age is much more marked for men than for women. Ninety-eight percent of the men aged 55-64 disabled for 7 months or more had been engaged in gainful work before disability.