S. DEPARTMENT OF COMMERCE
REAU OF THE CENSUS

6TH CENSUS
THE UNITED STATES
1940

POPULATION

THE LABOR FORCE

(Sample Statistics)

Occupational Characteristics

UNITED STATES DEPARTMENT OF COMMERCE
JESSE H. JONES, Secretary
BUREAU OF THE CENSUS
J. C. CAPT, Director (Appointed May 22, 1941)
WILLIAM LANE AUSTIN, Director (Retired January 31, 1941)
PHILIP M. HAUSER, Assistant Director

SIXTEENTH CENSUS OF THE UNITED STATES : 1940

POPULATION

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(Sample Statistics)

Occupational Characteristics

Prepared under the supervision of
Dr. LEON E. TRUESDELL
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SIXTEENTH CENSUS OF THE UNITED STATES : 1940

REPORTS ON POPULATION

Volume

I Number of Inhabitants, by States.
II Characteristics of the Population, by States.
III The Labor Force—Occupation, Industry, Employment, and Income, by States.
IV Characteristics by Age—Marital Status, Relationship, Education, and Citizenship, by States.

Statistics for Census Tracts (Including Housing Data).

Additional Reports—Internal Migration, Families (Including Housing Data), Fertility, Parentage, Mother Tongue, Further Statistics on The Labor Force, etc.

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REPORTS ON HOUSING

I Data for Small Areas, by States.
Supplement: Block Statistics for Cities.
II General Characteristics of Housing, by States.
III Characteristics by Monthly Rent or Value, by States.
IV Mortgages on Owner-Occupied Nonfarm Homes, by States.

Special Reports.

FOREWORD

Sampling techniques were utilized in the Sixteenth Decennial Census for the first time in the history of the Population Census. The use of sampling methods permitted the collection of statistics on a larger number of inquiries than had heretofore been possible, the release of preliminary population statistics at an early date, and the tabulation of a great many social and economic characteristics of the population at a relatively low cost.

This report is based on tabulations of a five-percent sample of the population returns and presents data on the personal and economic characteristics of the men and women in each occupation at the time of the 1940 census. The occupation data shown in this publication supplement those presented in Volume III of the Sixteenth Decennial Census Reports on Population, entitled "The Labor Force." This report was prepared under the supervision of Dr. Leon E. Truesdell, Chief Statistician for Population, and Dr. A. Ross Eckler, Assistant Chief Statistician, by William H. Mautz, Chief of Economic Statistics, Dr. Barry Casper, and David L. Kaplan. The sampling procedures were under the direction of Dr. W. Edwards Deming, Mathematical Adviser.

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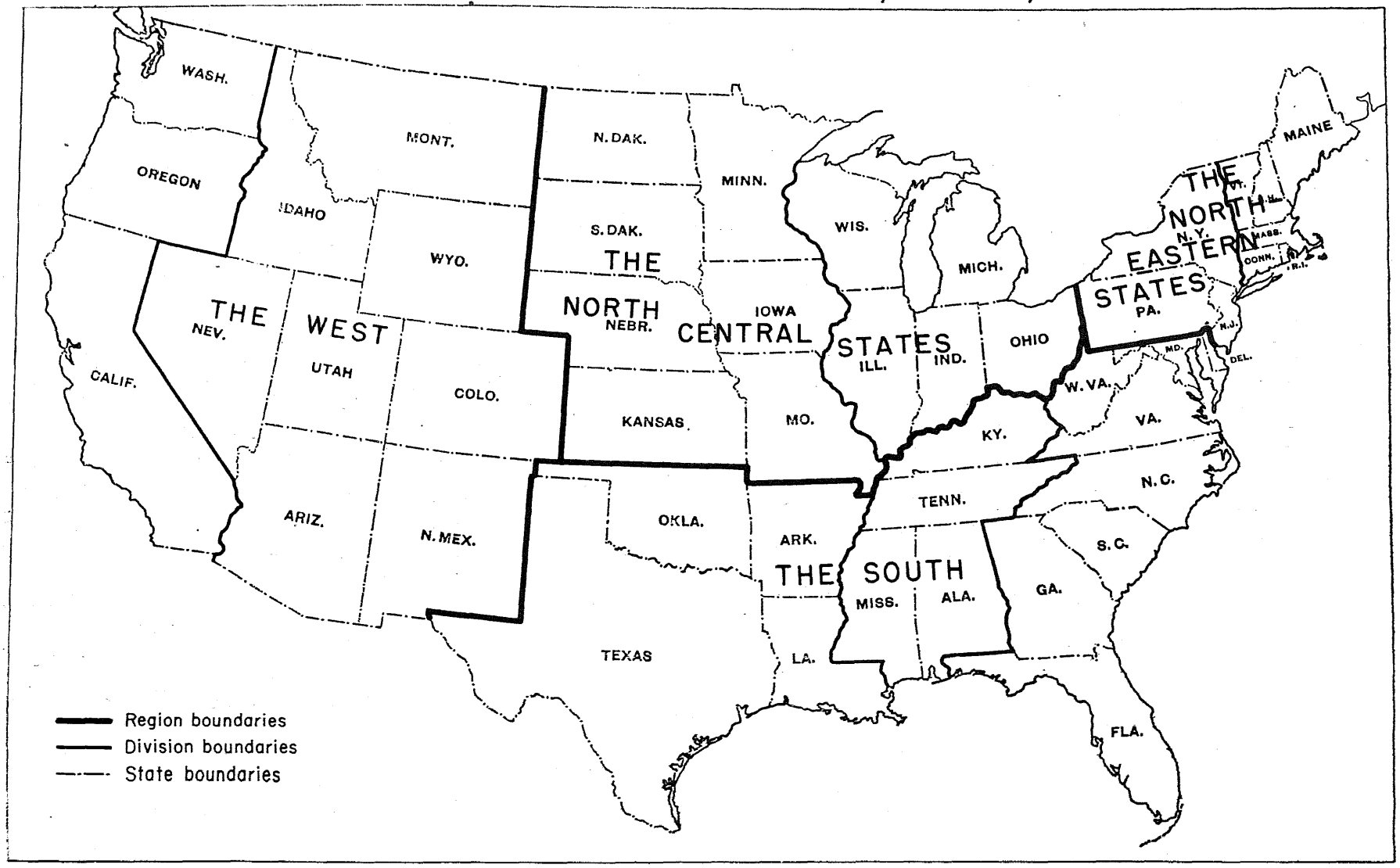
MAP OF THE UNITED STATES SHOWING REGIONS, DIVISIONS, AND STATES



OCCUPATIONAL CHARACTERISTICS

INTRODUCTION

GENERAL

This report presents data on the personal and economic characteristics of the men and women in each occupation, based on tabulations of a five-percent sample of the returns of the Sixteenth Decennial Census of Population, taken in April 1940.[1] The subjects included are color, age, years of school completed, employment status, class of worker, hours worked during the week of March 24 to 30, 1940, months worked in 1939, duration of unemployment, and industry. Statistics on all of these subjects are presented for the United States, and data on several subjects are shown for four broad regions and by urban-rural residence.

The statistics presented in this report, together with those presented in Volume III of the Reports on Population, entitled "The Labor Force," and those in another report in this series, entitled "Usual Occupation," constitute a body of information which describes the occupational structure of the American labor force in peacetime. Many of the statistics included in this report were made available to war agencies in advance of publication for use in planning and administering war programs. For example, data on the number and distribution of workers in March 1940 in those occupations in which wartime shortages subsequently developed have been useful in connection with the allocation of war contracts and the establishment of training programs. Similarly, figures on the age of workers in each occupation have been useful in the determination of Selective Service policies with respect to occupational deferment, and as measures of the extent to which military needs for persons with particular skills would be met by alternative deferment policies.

RELATED REPORTS

The statistics in this report supplement the occupation data presented in Volume III of the Reports on Population. The data in Volume III (comprising the third series Population bulletins) are based on tabulations of the complete census returns and are presented for the United States, States, and large cities. The number of men and women employed in each of the 451 occupations which comprise the complete 1940 census occupation classification is shown for States and cities of 100,000 or more. The intermediate lists of occupations (167 items for males and 76 items for females) are cross-classified in that volume with the following subjects not shown in this report: Wage or salary income in 1939, race, and marital status by age. In addition, the industrial distribution of persons in each major occupation group is given for States and cities of 250,000 or more. Volume III also presents statistics for persons in the labor force on such subjects as industry, wage or salary income in 1939, and marital status, as well as on most of the subjects shown in this report.

Occupation statistics for small areas are presented, in terms of major occupation groups, in Volume II of the Reports on Population, entitled "Characteristics of the Population." That volume, which contains data for States, all urban places, counties, and principal metropolitan districts, includes statistics on the general characteristics of the population, as well as on employment status of persons 14 years old and over, and class of worker and industry for employed persons.

This report is one of a series of publications under the general title "The Labor Force--Sample Statistics." The specific titles of other reports in this series which are closely related to occupation statistics and a brief summary of the subjects covered are shown below:[2]

Usual Occupation.— Data on the usual occupation of persons in the experienced labor force cross-classified with color, age, nativity and citizenship, and current or last major occupation group, for the United States, States, and large cities; data on the usual occupation of persons not in the labor force, according to color, age, and marital status, for the United States and regions, urban and rural.

Industrial Characteristics.—Statistics on the industrial characteristics of the experienced labor force (except persons on public emergency work), cross-classified with color, nativity and citizenship, age, employment status, class of worker, major occupation group, months worked in 1939, and other subjects, for the United States and for regions.

GEOGRAPHIC AREAS

Occupation statistics on most of the subjects included in this report are presented for each of four regions. The accompanying map shows the States included in each region. Regional figures are not given for the other characteristics presented in this report partly because of lack of publication space and partly because errors due to sampling are larger in the small cell frequencies often found in the detailed cross-classifications for regions.

AVAILABILITY OF UNPUBLISHED DATA

It has been necessary to omit from the tables in this report some of the occupation statistics that were tabulated. Omissions were dictated partly by limited funds for publication and partly by considerations of the reliability of the data, since comparatively large sampling errors are sometimes encountered in the more detailed cross-classifications for categories containing only a small number of persons.

Cross-classifications of occupation with age, years of school completed, class of worker, hours worked during the census week, months worked in 1939, and duration of unemployment are available, by sex and color, for each of the four regions, urban and rural. Data on occupation by industry (as shown in table 19) have been tabulated by sex and color, for the United States, urban and rural. Data on years of school completed by all persons in the labor force are available, by employment status, sex, and color, for regions, urban and rural.

The unpublished statistics, so far as the figures are large enough to be significant, can be made available upon request, for the cost of transcribing or reproducing them. Requests for such statistics, addressed to the Director of the Census, Washington, D. C., will receive a prompt reply which will include an estimate of the cost of preparing the data.

DEFINITIONS OF TERMS AND EXPLANATIONS

URBAN AND RURAL AREAS

In several of the tables figures are shown separately for urban and rural areas. Urban population, as defined by the Bureau of the Census, is in general that residing in cities and other incorporated places having 2,500 inhabitants or more. The remainder of the population is classified as rural.

EMPLOYMENT STATUS

The classification by employment status in the 1940 Census of Population was obtained from questions regarding the activity during the week of March 24 to 30, 1940, of all persons 14

[1] The 1940 Population Census schedule is reproduced in Part I of Volume III and Part 1 of Volume IV of the Sixteenth Census Reports on Population. The instructions to enumerators are also reproduced in these volumes.

[2] At the time this report goes to press in June of 1943, the reports referred to in this paragraph are in various stages of completion, and it is possible that minor changes may be made before publication.

years old and over. These questions permitted a classification into two large groups: (a) Persons in the labor force, including those at work, those with a job but temporarily absent from work, those on public emergency work, and those seeking work; and (b) persons not in the labor force. The latter group includes persons reported as engaged in own home housework, those in school, those unable to work, all inmates of penal and mental institutions and homes for the aged, infirm, and needy regardless of their activity during the census week; others not at work and not having a job, not on public emergency work, and not seeking work; and persons for whom employment status was not reported. The various categories of persons in the labor force and not in the labor force during the census week are summarized for the United States, by sex, in table I.

Table I. EMPLOYMENT STATUS OF PERSONS 14 YEARS OLD AND OVER, BY SEX, FOR THE UNITED STATES: MARCH 1940

[Statistics based on a 5-percent sample]

EMPLOYMENT STATUS	Total	Male	Female	PERCENT DISTRIBUTION		
				Total	Male	Female
Persons 14 years and over	101,015,740	50,543,840	50,471,900	100.0	100.0	100.0
In labor force	52,966,280	39,958,800	13,007,480	52.4	79.1	25.8
Not in labor force	48,049,460	10,585,040	37,464,420	47.6	20.9	74.2
Engaged in own home housework	28,685,300	273,760	28,411,540	28.4	0.5	56.3
In school	9,034,680	4,588,240	4,446,420	8.9	9.1	8.8
Unable to work	5,211,500	2,953,400	2,258,100	5.2	5.8	4.5
In institutions	1,142,340	746,940	395,400	1.1	1.5	0.8
Other	1,978,520	1,200,540	777,980	2.0	2.4	1.5
Employment status not reported	1,987,140	822,180	1,164,960	2.0	1.6	2.3
LABOR FORCE BY EMPLOYMENT STATUS						
In labor force	52,966,280	39,958,800	13,007,480	100.0	100.0	100.0
Employed (exc. emerg.)	45,581,960	34,103,440	11,478,520	85.7	85.3	88.7
At work	44,695,740	33,541,600	11,152,140	83.5	83.8	84.2
With a job but not at work	1,177,620	850,840	326,780	2.2	2.1	2.5
On public emergency work	2,451,440	2,002,540	448,900	4.6	5.0	3.5
Seeking work	5,121,480	2,852,820	1,279,660	9.7	9.6	9.8
Experienced workers	4,401,500	2,414,500	987,000	8.3	8.5	7.6
New workers	719,980	438,320	292,660	1.4	1.1	2.2

Employment status categories.—The employment status categories of persons in the labor force are defined below:

Employed (except on public emergency work).— The group classified as employed includes two subgroups: (a) "At work"--persons who worked for pay or profit at any time during the week of March 24 to 30, 1940, in private work or nonemergency Federal, State, or local government work, or assisted without pay on a family farm or in a family business; and (b) "With a job but not at work"--persons not actually at work and not seeking work during the week of March 24 to 30, 1940, but with jobs, businesses, or professional enterprises from which they were temporarily absent because of vacation, illness, industrial dispute, bad weather, or layoff not exceeding four weeks with definite instructions to return to work on a specific date. The group "Employed (except on public emergency work)" includes not only employees but also proprietors, farmers, other self-employed persons, and unpaid family workers.

On public emergency work.—This category includes persons who, during the week of March 24 to 30, 1940, were at work on, or assigned to, public emergency work projects conducted by the Work Projects Administration (WPA), the National Youth Administration (NYA), the Civilian Conservation Corps (CCC), or State or local work relief agencies.

Seeking work.— This category represents persons without work of any sort in the week of March 24 to 30, 1940, who were actively seeking work during that week. The group seeking work was subdivided into experienced workers and new workers, the latter being persons who had not previously worked full time for one month or more. Persons seeking work for which a report on work experience was lacking were classified as experienced workers.

Persons with a job but not at work were classified as employed because the strict definition of the "With a job" category and the fact that these persons were reported as not seeking work, tended to eliminate all except those who would shortly return to the employment from which they were temporarily absent. Of the total number of persons employed (except on public emergency work) in the United States, less than three percent were reported as having a job but not at work. In some occupations, however, the proportion of employed persons who were not at work during the census week was substantial. This was especially true in those occupations which tend to be seasonal in character. The number of persons with a job but not at work should therefore be taken into account in any analysis of time lost from work. In this report (table 9), the number of wage or salary workers at work, and the number with a job but not at work, in each occupation are presented for the United States, urban and rural, and for regions. The industrial distribution of all persons with a job but not at work is shown in the report entitled "The Labor Force--Sample Statistics, Industrial Characteristics."

Because of confusion on the part of the enumerators and respondents regarding the classification of certain types of public emergency work, and reluctance on the part of some persons to report that they were on emergency work, a considerable number of public emergency workers were improperly classified in the census returns. The most common type of misclassification was the reporting of emergency workers as "at work," although there is also evidence that considerable numbers were classified as "seeking work."[3]

Difficulties in employment status classification.[3]— It is sometimes difficult to obtain a reliable employment status classification for women because most of them are normally engaged at least to some extent in home housework, though they may also be working for pay or profit or at unpaid family work. For example, women with part-time jobs and women who had lost their jobs and were keeping house while looking for another employment opportunity may have been reported in some cases as engaged in own home housework. The difficulties in employment status classification of both women and children were especially great in rural areas, since it is very often hard to distinguish between work for pay or profit or unpaid family work on the one hand, and incidental farm chores and home housework on the other. In addition, many students working part time after school hours were probably reported as in school, as were a large proportion of those on the NYA Student Work Program.

For persons 65 years of age and over, and to some extent for those 55 to 64 years old, it is difficult to draw the line between able-bodied persons seeking work and disabled or retired persons no longer in the labor force. Moreover, many men in these age groups at the time of the census had been forced into retirement because of their inability to compete with younger workers, although they were still able and willing to work.

The category "Employment status not reported" includes two groups: (a) Persons reported as not in the labor force but not assigned to any specific category, who constituted about one-fifth of the 1,987,140 persons in the category "Employment status not reported;" and (b) those for whom enumerators did not obtain enough information to determine whether they were in the labor force, representing four-fifths of the total. The entire category is included in the total of persons not in the labor force, in the 1940 census reports, because most of the persons in group (b) were in classes of the population in which the proportion in the labor force is low. On the basis of available evidence, it seems probable that not more than 500,000 of these 1,987,140 persons for whom employment status was not reported would have been classified as in the labor force if full information had been obtained. Data on the characteristics of persons for whom employment status was not reported are presented in the report entitled "Characteristics of Persons Not in the Labor Force."

Comparability with previous census data for gainful workers.[3]— The 1940 data on the labor force are not directly comparable with the census statistics for gainful workers in 1930 and earlier years, partly because of differences in definition and partly because of differences in the types of questions upon which the data were based. "Gainful workers" were persons reported as having a gainful occupation, regardless of whether they were working at the time of the census. The labor force is defined in the 1940 census on the basis of activity during the week of March 24 to 30. Certain classes of persons, such as retired workers, some inmates of institutions, recently incapacitated workers, and seasonal workers neither working nor seeking work at the time of the census, were frequently included among gainful workers in 1930, but in general, such persons are not in the 1940 labor force. On the other hand, the 1940 labor force includes persons seeking work without previous work experience, that is, new workers, and persons reported as

[3] For a more complete discussion of this subject, see Part 1 of Volume III of the Reports on Population.

in the labor force for whom neither occupation nor industry was entered on the schedule. Most of the relatively few new workers at the time of the 1930 and earlier censuses were probably not counted as gainful workers. Likewise, some persons who were actually gainful workers, but for whom neither occupation nor industry was reported, were not included in the gainful worker figures for 1930 and earlier years.

These differences probably do not seriously affect the comparison of the total labor force in 1940 with the total number of gainful workers in 1930 and earlier years, since the groups classified as in the labor force in 1940 but not counted as gainful workers in 1930 and earlier years at least partly offset the groups included in 1930 but not in 1940. For particular occupation groups, however, the number returned as in the labor force in 1940 may have been far different from the number who would have been counted as gainful workers if the 1930 procedure had been used.

The 1940 labor force figures are restricted to persons 14 years old and over, whereas the number of gainful workers shown in earlier censuses included persons 10 years old and over. The number of workers 10 to 13 years old has become relatively small and no longer justifies the additional burden of enumeration and tabulation necessary to retain the 10-year age limit. In making comparisons between the 1940 labor force data and the gainful worker statistics in earlier census reports, the slight difference in age limits should be taken into consideration.

Changes in census dates also affect the comparison of 1940 data with those for earlier years. In 1900 the census was taken as of June 1, whereas in 1910 it was taken April 15, and in 1920, January 1; in both 1930 and 1940, the census date was April 1. These changes may have had a pronounced effect, especially in agricultural areas, on the size of the group returned as gainful workers and on their occupational and industrial distribution.

OCCUPATION

In the 1940 census, an inquiry relating to occupation[4] was made of all persons 14 years old and over in the labor force during the census week. For employed persons and for persons on public emergency work, this question referred to the "current" job, or the job on which they were engaged during the census week. For persons seeking work, the question referred to the "last" job, or the job on which they were most recently engaged for one month or more. A second inquiry on occupation[4] was made of a five-percent cross section of all persons 14 years old and over, regardless of whether they were in the labor force during the census week. This question asked for "usual" occupation, or the occupation the person regarded as his usual occupation and at which he was still physically able to work. For both of these inquiries, however, the enumerators were instructed to make no occupation entry for persons who had never worked full time for one month or more. It should be noted, therefore, that all occupation data for persons seeking work are restricted to experienced workers, since "new workers," by definition, had never worked on a job for one month or more.

The data presented in this report are based on the first of the two occupation inquiries mentioned in the preceding paragraph; hence, the statistics refer to "current" or "last" occupation, rather than to "usual" occupation. The tables do not give figures for persons on public emergency work. Although the question for such persons referred to the work on the public emergency project (their current job), many of these workers reported the occupation of their most recent nonemergency job or of the job in which they were usually engaged. Volume III of the Reports on Population presents, for each State, the current occupation of persons on public emergency work, in terms of eight major occupation groups. More detailed data on the usual occupation of emergency workers (derived from the second of the two inquiries mentioned in the preceding paragraph) will be shown in the report entitled "The Labor Force--Sample Statistics, Usual Occupation."

The statistics for most of the subjects shown in the detailed tables of this report are presented separately for employed persons (except on public emergency work) and for experienced workers seeking work, because of the difference between these two groups of workers in time reference of occupation. This separation makes possible an analysis of the differences in characteristics between the persons employed in a specific occupation and the persons whose last jobs were in that occupation but who were seeking work at the time of the census. In tables 13 to 16, however, these two groups of workers are combined since the data (months worked) refer to the year 1939, whereas the employment status classification is based on activity during the census week of March 24 to 30, 1940.

Structure of the occupation classification.-The occupation classification used for the 1940 census contains 451 titles, arranged in 11 major occupation groups. Of these 451 titles, 221 represent distinct occupations. The remaining 230 titles in the 451-item census occupation classification represent industry subdivisions of five occupations: "Proprietors, managers, and officials;" "Foremen;" "Inspectors;" "Operatives and kindred workers;" and "Laborers."

The use of the 451-item list is restricted to the presentation of occupation information for employed workers by sex in Volume III of the Reports on Population. In this report, intermediate occupation lists of 167 items for males and 76 items for females are used in presenting the cross-classifications of occupation with the various characteristics. These lists were made up chiefly by combining occupations in the detailed list of 451 occupations that are closely related or numerically small. The composition of each of the intermediate occupations in terms of the detailed occupations is shown in the Appendix of this report.

The occupation lists used in table 19, which consist of 116 items for males and 52 items for females, are basically identical with the intermediate lists used in the other tables of this report. Since occupation is cross-classified with industry in table 19, it is obviously unnecessary to show the industry subdivisions in the occupation lists. Also, the two intermediate occupations which form the major group "Farm laborers and foremen" are not shown separately in table 19 because the entire group is restricted to a single industry, "Agriculture," and the number of persons in each of the two component occupations, "Farm laborers (wage workers) and farm foremen" and "Farm laborers (unpaid family workers)," is available from other tables in this report. On the other hand, three of the intermediate occupations for males ("Designers and draftsmen," "Stationary engineers, cranemen, and hoistmen," and "Other specified laborers") are shown in greater detail in table 19 than in the other tables because of the special interest in the industrial distribution of the persons in these particular occupations.

With very few exceptions, the 451 items in the complete 1940 classification are convertible to the 327-item Convertibility List of Occupations which was designed by an interdepartmental Joint Committee on Occupational Classification (sponsored by the Central Statistical Board and the American Statistical Association) to increase comparability among occupation statistics compiled by various governmental and private agencies. The principal difference between the two classifications arises from a more detailed industrial subdivision in the census classification, of proprietors, managers, and officials; foremen; inspectors; operatives; and laborers. The census intermediate list of 167 items for males is, with two minor exceptions, convertible to the standard intermediate Convertibility List of 99 occupations, a shorter standard list devised for the use of agencies not requiring a detailed classification. The census intermediate list of 76 items for females and the 99-item Convertibility List are both convertible to a somewhat broader grouping of occupations.

The Bureau of the Census has published the "Alphabetical Index of Occupations and Industries: 1940" which gives an alphabetical list of approximately 25,000 occupation designations and shows the category of the complete census occupation classification to which each occupation return should be assigned. This publication also includes an alphabetical list of some 9,500 industry designations and the category of the complete census industry classification to which each industry return should be assigned. The Bureau of the Census has also published the "Classified Index of Occupations: 1940," in which the 25,000 occupation designations are arranged according to the 451 categories in the census list.

Difficulties in the classification of occupations.— The task of classifying the enumerators' returns on occupation would be difficult enough if all the returns were specific and accurate descriptions of the occupations concerned, since it involves the assignment of many thousands of different designations to one or another of the 451 titles comprising the most detailed census occupational classification. It is made more difficult, however, by the failure of many enumerators to return exact designations of specific occupations. Indefinite returns resulted in some cases from carelessness on the part of

[4] For exact phrasing of the questions, complete definitions, and other technical details, see the instructions to enumerators which are reproduced in Part 1 of Volume III of the Reports on Population.

the enumerators or from their lack of knowledge of occupational designations. In other cases, the housewives and others from whom the enumerators obtained their information did not know the specific occupations of the persons to whom the questions referred.

In many instances, however, indefinite occupation returns can be assigned to the proper classification through an examination of other entries on the schedule. For example, the return "Druggist" can often be assigned to the occupation class "Pharmacists" or to the class "Proprietors,...Drug store" on the basis of such collateral information as age, education, class of worker, and wage or salary income. Likewise, a person for whom the return was simply "Farm laborer" can usually be classified as a wage worker or as an unpaid family worker on the basis of schedule entries for family relationship, age, and receipt of income.

The industry return in particular is often of great assistance in the classification of an occupation; in fact, for many of the items in the occupational list some dependence on industry is essential. This is true not only of those in which the occupational designation itself involves reference to an industry (as "Spinner, cotton mill"), but also of other cases where the return in the industry column indirectly points out the proper occupational classification. A return of occupation and industry, "Salesman, pushcart," for example, would be classified under "Hucksters and peddlers" rather than under "Salesmen."

To some extent the difficulties in the classification of occupations grow out of the nature of the occupations themselves. At some points in what might be termed the occupational series the groups are clear-cut and distinct. A cabinetmaker, for example, is easily distinguished from a plumber or a bricklayer. At other points in the series the occupations do not fall into distinct categories or convenient groups but shade off one into another in such fashion as to call for almost arbitrary allocations to standard groups or classes.

From this it follows that some parts of the occupation classification must be accepted as representing categories less accurately and specifically defined than the cabinetmakers, plumbers, and bricklayers mentioned above. Frequently, there is difficulty in distinguishing, for example, between trained nurses and practical nurses, between technical engineers and stationary engineers, or between truck drivers and deliverymen, as a result of which the figures for these occupations must be considered somewhat less accurate than the figures representing occupations not involved in difficulties of this kind. Additional detail regarding classification problems will be presented in a subsequent report.

Occupations of women and children.— It is obvious that in so large a job as that represented by the application of a detailed occupation classification to 50 million workers, there will be some misclassifications, not only those growing out of insufficient information on the part of the persons answering the census enumerator's question, but also misclassifications resulting from carelessness on the part of the enumerator and from clerical errors in the tabulation of the returns. It is believed, however, that the number of misclassifications is too small to have any serious effect on the usefulness of the statistics so far as concerns practically the whole range of the occupation classification. There are a few cases, nevertheless, where relatively small numbers of erroneous returns may produce what might be regarded as a serious misstatement of the facts. These cases are found mainly in the figures which appear on the tabulation sheets for women and children in certain occupations in which women and children are seldom employed.

In many such occupations small numbers of women are actually employed, though mainly under unusual circumstances. A woman returned as a blacksmith, for example, may prove on investigation to be a widow who continues to operate, through hired labor, the blacksmith shop which she inherited from her husband; or, in a few cases, a woman of unusual physique and temperament may be found actually performing the work of a blacksmith. In the process of inspecting the enumerators' returns for women in this occupation, however, it was found more frequently that a careless enumerator had made the entry indicating the occupation of blacksmith on the line for the blacksmith's wife rather than on the line for the blacksmith himself.

In 1930, and likewise in 1920, and to a large extent in 1910, the cards representing questionable returns for women and children were sorted out, checked back to the schedules, and corrected if there was evidence on the schedule that the classification was in error. This, of course, involved a considerable amount of delay and expense and did not reduce very materially the total amount of misclassification in the occupation statistics as a whole. It did, however, remove the most obviously visible misclassifications.

At the time the detailed occupational tabulations were taken up in 1940, there was urgent demand for the occupation figures and other data coming from the same machine tabulations, and the funds available for the completion of these tabulations were limited. It was decided, therefore, to forego, for the most part, the process of checking the questionable cards back to the schedules and to make no attempt to check up occasional returns of unusual occupations for women and children, except in those extreme cases where the occupation seemed to be quite impossible, as, for example, women returned as locomotive engineers. Returns of this latter class were adjusted, and all cases where the questionable item represented considerable numbers were looked up and corrected; but small numbers of borderline cases, such as women returned as blacksmiths, were allowed to remain.

The figures for women in these unusual occupations are, therefore, not comparable with those for 1930 and any nominal increase which the figures may show should be regarded as possibly the result of the change in procedure. In particular, these nominal increases should not be interpreted as indicating an expansion of the field of female activities.[5]

The situation with respect to both the returns and the tabulated data for children in occupations unusual for children is practically the same as that just outlined with respect to the data for women in unusual occupations, and the same cautions should be expressed with respect to the use of these figures. In particular, a nominal increase in the number of children in any age group in a given occupation, especially if the total number is small, should not be interpreted as necessarily indicating an increase in the number of children actually following that occupation.[6]

Comparability with occupation data from earlier censuses.— No comparisons of the 1940 census data on occupation with similar data from the 1930 and earlier censuses are included in this report. Such comparisons are complicated by four important considerations.

In the first place, gainful workers, the group for which occupation statistics were presented in previous censuses, are not directly comparable with the 1940 labor force.

Second, the occupation data shown here do not cover the entire labor force. For persons on public emergency work, no data on occupation are presented.

Third, the occupations reported for 1930 and previous years did not necessarily apply to the current jobs of employed workers, or to the latest jobs of unemployed workers. Consequently, it is difficult to determine to what extent the figures for these earlier censuses may represent usual rather than current or latest occupations. In the 1940 census, on the other hand, the inquiries were designed to obtain current occupation for employed workers and latest occupation for persons seeking work.

Finally, the 1940 classification of occupation differs from that used in previous censuses. The occupation classifications used for the 1910, 1920, and 1930 censuses differed in relatively minor respects only, so that the occupation statistics for these censuses are reasonably comparable. The classification adopted for the 1940 census, however, differs considerably from that used for these earlier censuses, with respect to arrangement and content of titles. In 1930, for example, most of the 534 occupation titles were grouped under a few major industrial headings ("Agriculture," "Forestry and fishing," "Extraction of minerals," etc.), based upon the industry in which the occupation was most commonly followed. In 1940, the 451 occupation titles are grouped into 11 major subdivisions which are essentially occupation groups ("Professional and semiprofessional workers," "Craftsmen, foremen, and kindred workers," "Operatives and kindred workers," etc.),

[5] The following occupation groups include the occupations for which the data for females should be interpreted with special caution: "Other craftsmen and kindred workers," "Other specified operatives and kindred workers," "Protective service workers," and "Miscellaneous specified laborers." For the detailed occupations which comprise these groups, see List B, Appendix.

[6] Occupations that are unusual for children under 18 years of age include many occupations in the major groups "Professional and semiprofessional workers" and "Farmers and farm managers;" and most of the occupations in the major groups "Proprietors, managers, and officials, except farm," "Craftsmen, foremen, and kindred workers," and "Protective service workers." Most of the children returned as craftsmen or professional workers were doubtless, in fact, apprentices or assistants.

regardless of industrial attachment. In addition, many titles appear in the classification for one year but not for the other, and even similar titles in the two classifications are sometimes different in actual coverage. At many points, therefore, the two classifications are not directly comparable, although for occupations having well-defined standards of education and experience, especially for many professional and skilled-craft occupations, the comparability is adequate for most purposes. Studies are being made to determine for each title in the 1940 classification the most nearly comparable title or group of titles in the 1930 classification, and to determine the degree of comparability where there is a difference in coverage. The results of these studies, which will be presented in a later publication, will facilitate the comparison of occupation statistics for 1940 with those for earlier census years. Although the adoption of the new occupation classification for the 1940 census has created some problems of comparability with past censuses, it is believed that this difficulty is outweighed by the advantages that result from the use of a classification which is comparable with those used by other agencies.

Comparability with occupation data from other sources.—The statistics on occupation collected by other agencies are not entirely comparable with census data because of differences in the methods of obtaining the information. Occupation classifications based on the reports of employers may be expected to differ considerably from those based on interviews with employees. Likewise, data obtained from detailed interviews with individual workers may be considerably different from those obtained by the census method of house-to-house enumeration. In census enumeration, the information is frequently obtained from the wives of the workers or from other members of their households who may not be able to describe accurately the worker's occupation. Even when the respondent is entirely familiar with the worker's job, his description is often inexact. Moreover, the enumerators frequently lack the technical knowledge needed to distinguish between closely related occupations and to select the information most essential for accurate classification.

Another reason for possible differences between statistics based upon house-to-house canvass and those collected from employers arises in the treatment of persons having two or more different jobs in a given week. Such persons are counted only once in the population census, being classified in the occupation in which they worked the greater number of hours. They may be counted more than once, however, in reports collected from employers, since they appear on the weekly pay roll of more than one employer. For example, a person who devoted most of his time to working in a mine but in addition operated a farm was classified in the population census as a mine operative. Such a person may have been included as a farm operator by an agency collecting statistics on agricultural employment and also as a mine worker by an agency collecting statistics on nonagricultural employment.

PERSONAL CHARACTERISTICS

The statistics in this report include cross-classifications of the men and women in each occupation with color, age, and years of school completed. These data are useful in the study of child labor, vocational guidance, and social insurance problems. The data are not suitable for an exact analysis of the relationship between unemployment and color, age, and schooling of the persons in each occupation, since the corresponding statistics for persons on public emergency work are not shown. The occupational and personal characteristics of public emergency workers are materially different from those of the other workers in the labor force.

Color.—Because of the differences in economic status between whites and nonwhites, separate data for nonwhites in the United States and in the South are presented for most of the cross-classifications in this report. Statistics for nonwhites in other regions are not shown since the numbers of such persons are very small.

The group "nonwhite" consists of Negroes, Indians, Chinese, Japanese, and other nonwhite races. Persons of Mexican birth or ancestry who were not definitely Indian or of other nonwhite race were returned as white in 1940. The great majority of the nonwhites are Negroes, except in the West, where there are many Indians, Chinese, and Japanese.

Table II presents the distributions by major occupation group of employed persons (except on public emergency work) and of experienced workers seeking work, by sex and color, for the United States. This table indicates the striking differences in broad occupational skills between whites and nonwhites in each of the two employment status categories. The figures show, for example, that service workers and laborers constituted 20.4 percent of the employed white males and 24.2 percent of the employed white females, as compared with 55.8 percent of the employed nonwhite males, and 82.3 percent of the employed nonwhite females. The data also show that employment opportunities for nonwhites were extremely limited in the skilled-craft occupations. Although 9.0 percent of all employed men were nonwhite, only 2.7 percent of the employed male "Craftsmen, foremen, and kindred workers" were nonwhite. This limitation in opportunity for nonwhites was even greater than these figures indicate. As table 1 shows, 57.9 percent of the employed nonwhite male craftsmen were concentrated in five occupations: Mechanics and repairmen; carpenters; painters (const.); plasterers and cement finishers; and masons. Among the employed white male craftsmen, only 38.2 percent were in these five occupations.

Table II. MAJOR OCCUPATION GROUP OF EMPLOYED PERSONS (EXCEPT ON EMERGENCY WORK) AND OF EXPERIENCED WORKERS SEEKING WORK, BY SEX AND COLOR, FOR THE UNITED STATES: MARCH 1940

[Statistics based on a 5-percent sample. Percent not shown where less than 0.1]

MAJOR OCCUPATION GROUP AND SEX	NUMBER						PERCENT DISTRIBUTION					
	EMPLOYED (EXC. EMERG.)			SEEKING WORK, EXPERIENCED			EMPLOYED (EXC. EMERG.)			SEEKING WORK, EXPERIENCED		
	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite
Male	34,102,440	31,021,460	3,080,980	3,414,500	3,049,840	364,660	100.0	100.0	100.0	100.0	100.0	100.0
Professional and semiprofessional workers	1,892,640	1,834,640	58,000	84,480	79,400	5,080	5.5	5.9	1.9	2.5	2.6	1.4
Farmers and farm managers	4,996,780	4,341,040	655,740	33,540	30,260	3,280	14.7	14.0	21.3	1.0	1.0	0.9
Proprietors, managers, and officials, except farm	3,326,540	3,276,260	50,280	79,480	77,960	1,520	9.8	10.6	1.6	2.3	2.6	0.4
Clerical, sales, and kindred workers	4,360,920	4,295,580	65,340	322,560	315,680	6,880	12.8	13.8	2.1	9.4	10.4	1.9
Craftsmen, foremen, and kindred workers	4,958,680	4,822,420	136,260	592,680	568,080	24,600	14.5	15.5	4.4	17.4	18.6	6.7
Operatives and kindred workers	6,195,780	5,820,100	375,680	690,920	642,120	48,800	18.2	18.8	12.2	20.2	21.1	13.4
Domestic service workers	145,920	55,780	90,140	19,020	5,860	12,160	0.4	0.2	2.9	0.6	0.2	3.3
Protective service workers	670,260	653,980	16,280	24,980	23,840	1,140	2.0	2.1	0.5	0.7	0.8	0.3
Service workers, except domestic and protective	1,526,240	1,159,660	366,580	161,960	120,200	41,760	4.5	3.7	11.9	4.7	3.9	11.5
Farm laborers and foremen	2,733,560	2,119,020	614,540	304,220	263,540	40,680	8.0	6.8	19.9	8.9	8.6	11.2
Laborers, except farm and mine	2,971,720	2,340,320	631,400	835,000	683,120	152,880	8.7	7.5	20.5	24.5	22.4	41.9
Occupation not reported	323,400	302,660	20,740	264,660	238,780	25,880	0.9	1.0	0.7	7.8	7.8	7.1
Female	11,278,920	9,706,880	1,572,040	987,000	803,720	183,280	100.0	100.0	100.0	100.0	100.0	100.0
Professional and semiprofessional workers	1,459,940	1,392,640	67,300	50,960	47,120	3,840	12.9	14.3	4.3	5.2	5.9	2.1
Farmers and farm managers	164,160	114,520	49,640	620	340	280	1.5	1.2	3.2	0.1	-	0.2
Proprietors, managers, and officials, except farm	427,320	415,380	11,940	6,580	6,380	200	3.8	4.3	0.8	0.7	0.8	0.1
Clerical, sales, and kindred workers	3,191,160	3,166,400	24,760	235,220	230,660	4,560	28.3	32.6	1.6	23.8	28.7	2.5
Craftsmen, foremen, and kindred workers	117,460	114,740	2,720	9,040	8,680	360	1.0	1.2	0.2	0.9	1.1	0.2
Operatives and kindred workers	2,067,960	1,963,580	104,380	205,680	184,100	21,580	18.3	20.2	6.6	20.8	22.9	11.8
Domestic service workers	1,961,280	1,048,860	912,420	199,080	96,300	102,780	17.4	10.8	58.0	20.2	12.0	56.1
Protective service workers	5,180	4,980	200	340	320	20	-	0.1	-	-	-	-
Service workers, except domestic and protective	1,254,880	1,089,640	165,240	110,040	92,100	17,940	11.1	11.2	10.5	11.1	11.5	9.8
Farm laborers and foremen	320,080	118,640	201,440	21,640	9,940	11,700	2.8	1.2	12.8	2.2	1.2	6.4
Laborers, except farm and mine	102,600	87,800	14,800	19,120	13,440	5,680	0.9	0.9	0.9	1.9	1.7	3.1
Occupation not reported	206,900	189,700	17,200	128,680	114,340	14,340	1.8	2.0	1.1	13.0	14.2	7.8

The occupational distributions of nonwhite persons classified as "Negroes" and "Other races" are shown for each State and each city of 100,000 or more in Volume III of the Reports on Population.

Age.—The age classification is based on age of the person at his last birthday before April 1, 1940, that is, age in completed years. For workers 20 years old and over, the age data are presented by five-year intervals, up to age 64, with workers 65 years and over shown in a single group. For persons 14 to 19 years old the data are presented in two-year intervals.

Volume III of the Reports on Population presents the age distributions of employed persons (except on public emergency work) and of experienced workers seeking work, in each occupation, for each State and for each city of 100,000 or more. The age intervals used in that volume are less detailed than those used in this report, except that data for persons 14 years old, 15 years old, and 65 to 74 years old are shown separately.

Years of school completed.—In 1940 the census, for the first time, included a question on the formal educational attainment of each person. The question on the schedule asked for the last full grade that the person had completed in the regular school system--public, private, or parochial school, college, or university. This question replaced the inquiry on illiteracy included in previous censuses and provides data on educational status, a characteristic that is significant for every population group, especially in combination with other characteristics, such as occupation.

The median year of school completed may be defined as the year which divides the population group into equal parts, one-half having completed more schooling and one-half having completed less schooling than the median. These medians are expressed in terms of a continuous series of numbers representing years of school completed. For example, the completion of the first year of high school is indicated by 9 and of the last year of college by 16. For the sake of comparability, the first year of high school is uniformly represented by 9, although there are some areas with only 7 years of elementary school.

These statistics indicate the relationship between occupation and educational attainment for the persons in each employment status category. Table III presents the median years of school completed by employed persons (except on public emergency work) and by experienced workers seeking work, by major occupation group and sex, for the United States. This table shows that, among the employed males, the major occupation groups with the lowest median number of school years completed were the following: "Domestic service workers" (7.3 years), "Farm laborers and foremen" (7.5), "Farmers and farm managers" (7.6), and "Laborers, except farm and mine" (7.7). Three of these major groups were also the ones with the least schooling among the employed females: "Farm laborers and foremen" (6.0 years), "Farmers and farm managers" (7.3), and "Domestic service workers" (7.5).

Table III. MEDIAN YEARS OF SCHOOL COMPLETED BY EMPLOYED PERSONS (EXCEPT ON EMERGENCY WORK) AND BY EXPERIENCED WORKERS SEEKING WORK, BY MAJOR OCCUPATION GROUP AND SEX, FOR THE UNITED STATES: MARCH 1940

[Statistics based on a 5-percent sample. Median not shown where base is less than 2000]

MAJOR OCCUPATION GROUP	MALE		FEMALE	
	Employed (exc. emerg.)	Seeking work, experienced	Employed (exc. emerg.)	Seeking work, experienced
All occupations	8.7	8.3	10.8	9.7
Professional and semiprofessional workers	16+	16.7	14.7	12.9
Farmers and farm managers	7.6	7.4	7.3	-
Proprietors, managers, and officials, exc. farm	10.9	9.7	11.0	12.2
Clerical, sales, and kindred workers	12.1	11.5	12.3	12.2
Craftsmen, foremen, and kindred workers	8.6	8.2	9.0	8.7
Operatives and kindred workers	8.5	8.3	8.6	8.5
Domestic service workers	7.3	7.0	7.9	7.9
Protective service workers	8.9	8.1	9.5	-
Service workers, exc. domestic and protective	8.3	8.3	9.5	9.4
Farm laborers and foremen	7.5	7.4	6.0	5.9
Laborers, except farm and mine	7.7	7.7	8.6	8.1
Occupation not reported	9.1	8.7	9.6	10.2

In addition, the figures indicate the relationship between the relatively low educational attainment of nonwhites and their limited occupational distribution. The median number of school years completed by all employed men (except on public emergency work) was 8.7 years, as compared with 5.5 years completed by the corresponding group of nonwhite men (table 4). For women, the difference was even greater; the total employed had completed 10.8 years of school while the nonwhite employed had completed only 6.8 years. The concentration of nonwhite workers in the service and laborer occupations has already been discussed above.

The statistics in table 3 indicate that the educational attainment of some persons in certain of the professional occupations has been limited to grade school or high school. As explained above, the data on years of school completed refer only to formal schooling, and do not include tutoring, personal home study, or other such means of obtaining an education. In addition, the titles of certain of the professional occupation groups do not describe fully the composition of these groups. Frequently, a group will include jobs which are properly classified in the particular group but yet are different from the major components of the group in the need for formal schooling. The occupation group "Architects," for example, includes "Landscape architects" and "Superintendent, architect's office," while "Chemists, assayers, and metallurgists" includes "Assistant chemist" and "Cement tester." Nevertheless, the statistics which show unusually low educational attainments for professional workers should be interpreted with caution, since undetected errors in enumeration and processing have undoubtedly affected the data.

CLASS OF WORKER

The classification by class of worker, like the occupation classification, refers to the current job during the week of March 24 to 30, 1940, for employed persons, and to the last job of one month or more, for experienced workers seeking work. The composition of each class-of-worker category is described below:

Wage or salary workers.—This class consists of persons who, in their current or last job, worked as employees for wages or salary (in cash or kind). It includes not only factory operatives, laborers, clerks, etc., who worked for wages, but also persons working for tips or for room and board, salesmen and other employees working for commissions, and salaried business managers, corporation executives, and government officials. This category is further subdivided into: (a) Private wage or salary workers, working for individual employers, private corporations, and for all other employers except governmental agencies, and (b) Government workers, including all employees of Federal, State, or local governments. Persons whose current or latest jobs were on public emergency work are classified as government workers.

Employers and own-account workers.—This group consists of persons who, in their current or latest work, operated their own business enterprises. It includes not only the owner-operators of large stores and manufacturing establishments, but also small merchants, independent craftsmen, farmers, professional men, peddlers, and other persons conducting enterprises of their own. It does not include managers paid to operate businesses owned by other persons or by corporations; such workers are classified as wage or salary workers.

Unpaid family workers.—This class is composed of persons who assisted without pay on farms or in stores or other enterprises operated by other members of their families. The great majority of unpaid family workers are farm laborers.

Persons in the labor force for whom class of worker was not reported have been included among private wage or salary workers, unless there was evidence to the contrary. The number of employed persons in the entire United States for whom class of worker could not be determined was 239,108, or only 0.5 percent of the total employed.

Although a similar classification by class of worker (except for the separation of government workers) has been available from the questions asked in preceding censuses, it has never been published except as a subclassification of persons engaged in agricultural pursuits. It is included in the 1940 census publications because of its value in many types of labor market analyses and in the interpretation of data on the employment status of the labor force.

The class-of-worker distribution of the persons in the various occupations is pertinent to unemployment analysis because the risk of complete unemployment is far greater for wage or salary workers than for employers, own-account workers, and unpaid family workers. The latter classes of workers become totally unemployed only when they (or their relatives operating the family enterprise) are forced out of business. Table IV presents the class-of-worker distributions of employed persons

(except on public emergency work) and of experienced workers seeking work, by sex, for the United States, urban and rural. This table shows that only 5.9 percent of the experienced male workers seeking work at the time of the census were employers and own-account workers and only 0.5 percent were unpaid family workers, whereas 25.9 percent of the employed male workers were employers and own-account workers, and 2.9 percent were unpaid family workers. The comparative immunity of self-employed workers to total unemployment does not necessarily mean that their economic situation is favorable since they may make very small gains or even suffer heavy losses while they remain in business.

Table IV. CLASS OF WORKER OF EMPLOYED PERSONS (EXCEPT ON EMERGENCY WORK) AND OF EXPERIENCED WORKERS SEEKING WORK, BY SEX, FOR THE UNITED STATES, URBAN AND RURAL: 1940

[Statistics based on a 5-percent sample]

CLASS OF WORKER AND SEX	NUMBER						PERCENT DISTRIBUTION					
	United States		Urban		Rural		United States		Urban		Rural	
	Employed (exc. emerg.)	Seeking work, experienced	Employed (exc. emerg.)	Seeking work, experienced	Employed (exc. emerg.)	Seeking work, experienced	Employed (exc. emerg.)	Seeking work, experienced	Employed (exc. emerg.)	Seeking work, experienced	Employed (exc. emerg.)	Seeking work, experienced
Male	34,102,440	3,414,500	19,324,300	2,309,520	14,778,140	1,104,980	100.0	100.0	100.0	100.0	100.0	100.0
Wage or salary workers	24,264,340	3,193,860	16,537,380	2,180,180	7,726,960	1,013,680	71.2	93.5	85.6	94.4	52.3	91.7
Private wage or salary workers	21,679,040	2,881,820	14,827,700	1,983,980	6,851,340	897,840	63.6	84.4	76.7	85.9	46.4	81.3
Government workers	2,585,300	312,040	1,709,680	196,200	875,620	115,840	7.6	9.1	8.8	8.5	5.9	10.5
Employers and own-account workers	8,835,700	202,400	2,735,860	126,960	6,099,840	75,440	25.9	5.9	14.2	5.5	41.3	6.8
Unpaid family workers	1,002,400	18,240	51,060	2,380	951,340	15,860	2.9	0.5	0.3	0.1	6.4	1.4
Female	11,278,920	987,000	8,394,680	778,820	2,884,240	208,180	100.0	100.0	100.0	100.0	100.0	100.0
Wage or salary workers	9,906,920	957,300	7,658,480	757,580	2,248,440	199,720	87.8	97.0	91.2	97.3	78.0	95.9
Private wage or salary workers	8,566,420	891,160	6,776,440	709,240	1,789,980	181,920	75.9	90.3	80.7	91.1	62.1	87.4
Government workers	1,340,500	66,140	882,040	48,340	458,460	17,800	11.9	6.7	10.5	6.2	15.9	8.6
Employers and own-account workers	957,640	25,760	598,820	20,300	358,820	5,460	8.5	2.6	7.1	2.6	12.4	2.6
Unpaid family workers	414,360	3,940	137,380	940	276,980	3,000	3.7	0.4	1.6	0.1	9.6	1.4

In the interpretation of the data for rural areas, it should be borne in mind that more than one million of the employed workers in these areas were employed as "Farm laborers (unpaid family workers)," which is often little better than a makeshift activity for sons and daughters of farmers when they cannot find other employment. Many of these unpaid family workers represented a labor reserve for nonagricultural industries.

HOURS WORKED DURING THE CENSUS WEEK

The groupings of hours worked that appear in this report are designed to show the length of the usual work week in each occupation at the time of the census, and the proportions of workers whose hours were above or below the typical number. Since 40 hours and 48 hours were standard for full-time work in many industries, persons who reported exactly these numbers of hours are shown separately. The proportions of persons who worked less than the most common number of hours are indicative of the prevalence of part-time employment in the various occupations at the time of the census. It should be borne in mind, however, that the standards of full-time work vary extensively even within a single occupation, and that many persons working part time do not desire more work. In addition, it should be pointed out that since the data refer to a single week they may not be as good a general measure of the amount of part-time work for seasonal activities as for nonseasonal activities.

Data on hours of work are not shown in this report for persons other than wage or salary workers because these data are less significant and less reliable than those for wage and salary workers. Employers, own-account workers, and unpaid family workers do not ordinarily follow regular schedules of work, and it is often difficult, especially for professional men working on their own account, to determine the number of hours devoted to their occupations or businesses during a week. Statistics on the hours of work of all employed persons (except on public emergency work) are given, by industry and sex, in the report entitled "The Labor Force--Sample Statistics, Industrial Characteristics."

Because of the general interest in the relationship of unpaid family farm laborers to the agricultural labor force, a special tabulation was made of the hours worked by these persons during the census week. The results (presented in tables 11 and 12) are useful as a measure of the contribution of unpaid family farm laborers to farm production. Since the data refer to a single week, and since farm work is obviously a seasonal activity, considerable care should be exercised in interpreting the statistics. This caution is particularly necessary because a large proportion of these workers are young persons, many of whom were attending school during the last week of March, or were restricted by inclement weather to a limited participation in work on the farm. An additional measure of the contribution of unpaid farm laborers, and one which should be used in conjunction with the data on hours worked, is provided by the data on months worked in 1939 (shown in tables 15 and 16).

MONTHS WORKED IN 1939

All persons 14 years old and over at the time of the census, except inmates of certain institutions, were asked to report the number of weeks worked in 1939 for pay or profit, including emergency work, or at unpaid family work. For periods of part-time work, the report was to be made in terms of equivalent full-time weeks, a full-time week being defined as the number of hours locally regarded as full time for the given occupation and industry. Paid vacations or other absences with pay were included in the number of weeks worked, except that summer vacations of school teachers who did no other work during the summer were not counted.

The returns for weeks worked in 1939 have been converted into months in the tables in this report, because a large proportion of the reports were only approximate, and did not represent valid statements of the precise number of weeks of work.[7] The groupings of months worked that are used in this report are listed below with their equivalents in terms of weeks worked as reported.

Number of months worked	Reported number of weeks worked
Without work in 1939	0 weeks
With work in 1939:	
Under 3 months	1 to 10 weeks
3 months	11 to 14 weeks
4 and 5 months	15 to 23 weeks
6 to 8 months	24 to 35 weeks
9 to 11 months	36 to 49 weeks
12 months	50 to 52 weeks

[7] This lack of precision was evidenced by a marked tendency for enumerators to report weeks worked in multiples of 4 weeks, indicating that they had determined the approximate amount of employment in terms of months, and multiplied the number of months by four to obtain the number of weeks. In converting the returns to months for purposes of publication, it was necessary to take account of the slight error that resulted from the enumerators' procedure of multiplying the number of months by four instead of by four and one-third. The class intervals were so chosen that the weekly equivalent of any given number of months would always fall in the same interval, whether the conversion was made on the basis of four or four and one-third weeks per month. Thus, 9 months might be figured incorrectly as 36 weeks or correctly as 39 weeks, but both figures fall in the group 36 to 49 weeks, which is equivalent to 9 to 11 months. In the case of 12 months, however, this procedure was not used, since it was apparent that enumerators had seldom used 48 weeks as the equivalent of 12 months.

The data on months worked provide an indication of the continuity of employment, and are helpful in the analysis of unemployment in the various occupations. The deviation from twelve in the number of months worked by a given group yields a measure of unemployment. Because of three complications, however, this measure is only approximate. In the first place, the number of months worked includes time on public emergency work, so that some of the persons reporting 12 months worked in 1939 were actually unemployed during part or all of the year. In the second place, the figures do not take account of periods during which the persons were not in the labor force; for example, persons without work in 1939 include not only those who were unemployed during the whole year, but also some persons who were in the labor force at the time of the census but had not been in the labor force at any time in 1939. Finally, work was to be reported in terms of equivalent full-time weeks so that for part-time workers the number of months worked in 1939 is less than the number of months during which they had some employment.

Although these statistics are a better measure of unemployment than employment status in the census week for occupations in which there is much part-time or casual employment, and for seasonal occupations, the data on months worked should be interpreted with care. Accurate reports were frequently unobtainable for persons who worked intermittently at many separate times during the year. In many cases the information was not obtained from the worker himself, but from a relative or other member of the household who may not have been able to report accurately the amount of employment in 1939. Moreover, the classifications according to employment status, class of worker, and occupation refer to the week of March 24 to 30, 1940, nearly three months after the calendar year to which the data on months worked refer. The number of persons who shifted from one occupation to another during 1939 and early 1940 was probably not great enough to distort the distribution by months worked for the majority of occupations, but substantial shifts may have occurred in particular activities in some areas.

Data on months worked in 1939 by employers, own-account workers, or unpaid family workers are not shown in this report because these figures are less significant and less reliable for such workers than for wage or salary workers. Statistics on months worked by all experienced persons in the labor force (except persons on public emergency work) are given, by industry and sex, in the report entitled "The Labor Force--Sample Statistics, Industrial Characteristics."

As mentioned above, a special tabulation was made of the months worked in 1939 by unpaid family farm laborers. The data (presented in tables 15 and 16) should be interpreted with considerable caution, since unpaid farm laborers work on a more irregular basis, both in terms of hours worked during the week and in weeks worked during the year, than most occupational groups.

DURATION OF UNEMPLOYMENT

The duration of unemployment of experienced workers seeking work represents the length of time (up to March 30, 1940) during which these persons had been seeking work or working on public emergency projects. For persons who had previously worked at private or nonemergency government jobs, duration of unemployment was defined as the length of time since the end of the last full-time private or nonemergency government job of one month or more. For persons who had never worked for one month or more at such a job (and for persons who had been out of the labor force for considerable periods of time), enumerators were instructed to report the length of time since the persons last began to seek work. Data are not presented for persons other than wage or salary workers seeking work, partly because comparatively few of the other classes were unemployed and partly because the data for them are less reliable than for wage or salary workers.

Statistics on duration of unemployment by occupation are also shown in the publications of the 1930 census. These statistics, however, are not closely comparable with the 1940 figures, mainly because of differences in definitions of the groups of workers to which the figures refer.

Duration of unemployment was returned on the 1940 census schedules in terms of weeks, but in this report the data are presented in terms of months.[8] The classes of duration of unemployment that are used, and their equivalents in terms of weeks as reported, are listed below.

Duration in months	Reported duration in weeks
Less than 1 month	Under 3 weeks
1 month	3 to 6 weeks
2 months	7 to 10 weeks
3 months	11 to 14 weeks
4 and 5 months	15 to 23 weeks
6 to 8 months	24 to 35 weeks
9 to 11 months	36 to 49 weeks
12 to 23 months	50 to 99 weeks
24 to 35 months	100 to 149 weeks
36 or more months	150 or more weeks

These statistics indicate severity of unemployment in each occupation and are therefore useful as a supplement to other measures of unemployment by occupation. For occupations with a relatively large number of persons who did not report duration of unemployment, care should be exercised in the interpretation of the data, since it is unsafe to assume that the periods of unemployment of the persons who reported were representative of the total.

INDUSTRY

The occupational distribution of the men and women employed in each industry, as well as the industrial distribution of the men and women employed in each occupation, is presented in table 19 of this report. The occupational distribution of the persons in a particular industry is shown in the designated column of this table; conversely, the industrial distribution of the persons in a particular occupation is shown in the designated line of this table.

Both the occupation and the industry shown in this table refer to the jobs in which the persons were employed during the census week. The occupation classification is in effect the same as that used in the other tables of this report, as explained in "Structure of the occupation classification," above. The industry classification used in this table is the complete 1940 census industry list of 132 items.

The data shown in table 19 are summarized in table V, in terms of major occupation and industry groups. The figures in these tables are useful as an indication of the number of persons with essential skills who would be made available for war production through conversion or curtailment of less-essential industrial activities. The data are also useful in connection with vocational guidance studies, as the statistics reflect the broad occupational needs of each industry.

A special caution with respect to small numbers should be expressed in regard to the figures in table 19. Exceedingly small numbers, such as 20, 40, or 60, may usually be interpreted to mean that some few persons were actually engaged in the occupations and industries indicated. For occupations that are very unusual for certain industries, however, such small figures may represent undetected errors of enumeration or classification. Data based on tabulations of the complete census returns are shown in Part 1 of Volume III of the Reports on Population for the occupation-industry combinations indicated in table 19 by an asterisk (*), as well as for the totals for each occupation and industry.

Additional statistics on occupation by industry are presented in other 1940 census publications. Volume III of the Reports on Population gives, for each State and each city of 250,000 or more, the major occupation group of the men and women employed (except on public emergency work) in each of the 82 industry groups which comprise the intermediate industry list. The major occupation group distributions of employed wage or salary workers (except on public emergency work) and of wage or salary workers seeking work for each of the 132 industries are presented, for the United States and for regions, in the report entitled "The Labor Force--Sample Statistics, Industrial Characteristics."

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[8] For a statement of the reasons for the conversion to months and the procedures used, see "Months worked in 1939," above. In addition, there was evidence of a tendency to report very long durations of unemployment in multiples of 50 weeks, indicating that some enumerators had calculated the number of weeks by multiplying a given number of years by 50. To take account of this tendency, the classes designated as 12 to 23 months, 24 to 35 months, and 36 or more months, representing 1, 2, and 3 or more years, respectively, were so designed that the weekly equivalent of any given number of years would always fall in the same interval, whether the conversion was made on the basis of 50 or 52 weeks per year.

Table V. MAJOR OCCUPATION GROUP OF EMPLOYED PERSONS (EXCEPT ON EMERGENCY WORK), BY MAJOR INDUSTRY GROUP AND SEX, FOR THE UNITED STATES: MARCH 1940

[Statistics based on a 5-percent sample]

MAJOR OCCUPATION GROUP AND SEX	All industries	Agriculture, forestry, and fishery	Mining	Construction	Manufacturing	Transportation, communication, and other public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Business and repair services	Personal services	Amusement, recreation, and related services	Professional and related services	Government	Industry not rptd.
Male	34,102,440	7,958,900	894,860	2,054,680	8,250,660	2,756,620	5,497,460	1,022,000	792,300	1,140,400	317,140	1,484,760	1,407,820	524,840
Professional and semiprof. workers	1,892,640	18,580	17,800	65,860	287,460	79,660	107,700	15,120	27,520	62,240	76,300	1,000,580	126,940	6,880
Farmers and farm managers	4,996,780	4,996,780	-	-	-	-	-	-	-	-	-	-	-	-
Proprietors, managers, and officials, exc. farm	3,326,540	13,460	31,900	115,900	444,540	210,040	1,785,220	218,640	97,400	92,020	64,780	38,500	200,220	13,920
Clerical, sales, and kindred workers	4,360,920	8,320	25,740	31,680	989,560	412,480	1,635,600	583,080	56,660	59,440	19,620	84,360	393,940	60,440
Craftsmen, foremen, and kindred wkrs.	4,958,680	11,380	118,380	1,208,660	2,000,220	534,000	352,680	28,440	459,380	89,200	14,020	44,140	70,040	28,140
Operatives and kindred workers	6,195,780	39,260	694,240	160,080	2,982,800	954,080	893,260	10,420	83,820	206,900	32,940	55,480	43,080	39,420
Domestic service workers	145,920	-	-	-	-	-	-	-	-	145,920	-	-	-	-
Protective service workers	670,260	4,140	4,660	6,420	76,460	44,460	16,280	13,780	8,540	5,660	3,640	9,780	472,580	3,860
Service workers, exc. domestic and protective	1,526,240	1,740	1,300	2,460	75,360	61,020	482,760	126,080	15,280	404,540	82,020	228,240	34,020	11,420
Farm laborers and foremen	2,733,560	2,733,560	-	-	-	-	-	-	-	-	-	-	-	-
Laborers, except farm and mine	2,971,720	130,880	380	460,760	1,370,060	452,620	215,800	24,260	42,700	73,420	22,880	21,840	61,220	94,900
Occupation not reported	323,400	800	460	2,860	24,200	8,260	8,160	2,180	1,000	1,060	940	1,840	5,780	265,860
Female	11,278,920	499,600	12,660	39,540	2,349,620	348,680	2,042,600	463,620	79,260	2,864,340	83,060	1,835,640	350,100	310,180
Professional and semiprof. workers	1,459,940	480	280	660	32,240	4,840	12,960	2,760	6,660	21,420	28,020	1,302,680	45,380	1,560
Farmers and farm managers	164,160	164,160	-	-	-	-	-	-	-	-	-	-	-	-
Proprietors, managers, and officials, exc. farm	427,320	920	520	1,560	21,760	6,780	257,920	41,960	6,060	31,720	3,880	16,520	35,180	2,540
Clerical, sales, and kindred workers	3,191,160	6,740	7,860	24,420	500,280	311,740	1,183,620	370,380	55,840	63,880	31,540	287,060	247,420	100,380
Craftsmen, foremen, and kindred wkrs.	117,460	200	500	7,960	64,060	4,260	24,920	740	4,160	5,340	1,120	2,540	860	800
Operatives and kindred workers	2,067,960	3,460	3,020	1,020	1,636,580	9,420	121,920	540	4,180	253,200	1,900	25,040	3,220	4,460
Domestic service workers	1,961,280	-	-	-	-	-	-	-	-	1,961,280	-	-	-	-
Protective service workers	5,180	60	-	-	380	300	640	260	220	40	20	340	2,820	40
Service workers, exc. domestic and protective	1,254,880	1,520	440	220	13,020	7,140	429,940	46,000	1,340	520,460	16,000	198,580	13,520	6,700
Farm laborers and foremen	320,080	320,080	-	-	-	-	-	-	-	-	-	-	-	-
Laborers, except farm and mine	102,600	1,920	-	3,700	74,200	3,620	7,860	220	580	6,140	420	1,020	600	2,320
Occupation not reported	206,900	60	40	-	7,100	580	2,820	760	220	860	180	1,860	1,040	191,380

Structure of the industry classification.—The complete industry classification used in the 1940 census contains 132 items. This classification is a condensation of the 1,411 titles in the Standard Industrial Classification, which was prepared for use in classifying industry returns from workers or members of their families, by the Joint Committee on Occupational Classification, in cooperation with the Committee on Industrial Classification which was sponsored by the Central Statistical Board.

Not all of the titles in the 1940 industry classification correspond with those in the 128-item industry classification used in the 1930 census. Some titles appear in the classification for one year but not the other, and similar titles in the two classifications are sometimes different in actual coverage. Studies which are being made of the relationship between the 1940 and 1930 industry classifications will show the items that correspond in the classifications for the two censuses, indicate the probable extent of difference in other items, and list the items that are not comparable.

Difficulties in the classification of industries.—The problems in industry classification are in general similar to the problems of occupation classification (discussed above), except that assistance in the classification of indefinite returns is sometimes available not only from other parts of the population schedule, but also from information with respect to industries existing in a given locality or from the industry classification of a specifically-named employer, which may be obtained from industrial directories and similar publications.

The industry returned as "Mining" on a schedule for certain counties in Pennsylvania, for example, may safely be classified as "Coal mining," while a similar return on a schedule for certain counties in Wisconsin may be classified specifically as "Metal mining." Likewise, the industry return, "Textile mill," on a schedule for a town in Alabama in which the only textile plant is a cotton mill, may safely be classified as "Cotton manufactures." It is not always possible, of course, to supplement the enumerator's returns in this fashion.

Typical industry returns in connection with which there are difficulties of the type just indicated are "Box factory" (which may make either paperboard boxes or wooden boxes), "Rayon factory" (which may represent the chemical industry producing rayon yarn or the textile industry using rayon yarn in weaving), "Lumber company" (which may represent a logging company, a sawmill, or a lumber dealer), and "Oil company" (which may represent the production of crude petroleum, the refining of petroleum, the selling of petroleum products, etc.).

As in the case of the occupation classification, therefore, the user of the statistics for workers classified by industry should keep in mind the fact that the figures for the industry classifications which are clear-cut and definite are likely to be more accurate than those for industry classifications involving complications like those mentioned above.

Coverage of industry classifications "Government," "Domestic service," and "Agriculture."—The industry classifications "Federal government (not elsewhere classified)" and "State and local government (not elsewhere classified)" do not include all persons employed by governmental agencies. Persons are included in these classifications only if they were engaged in activities that are peculiarly governmental functions. Government employees who were engaged in activities that are commonly performed by employees of private enterprises are included in the industry classification in which their activities fell. For example, a county tax collector is included in the industry classification "State and local government (not elsewhere classified)," but a lineman employed by a municipally owned power plant is classified in the category "Electric light and power." The total number of persons employed by governmental agencies, therefore, cannot be obtained from the industry classification, but such a figure is available from the class-of-worker data presented in this report (table 6).

The industry group "Domestic service" is somewhat more inclusive than the major occupation group "Domestic service workers," which is limited to "Housekeepers, private family," "Laundresses, private family," and "Servants, private family." The industry classification "Domestic service" includes not only these workers but also persons in occupations such as practical nurse, chauffeur, and gardener, if they were employed by private families.

The industry classification "Agriculture" is likewise somewhat more inclusive than the two major occupation groups "Farmers and farm managers" and "Farm laborers and foremen." The industry classification also includes persons employed on farms in other occupations, such as truck and tractor drivers,

mechanics and repairmen, and bookkeepers, and persons engaged in agricultural activities other than strictly farm operation, such as cotton ginning, landscape gardening, operation of greenhouses, and farm services such as irrigation and spraying.

COMPARISON BETWEEN RESULTS OF SAMPLE TABULATIONS AND COMPLETE COUNT

The statistics shown in this report are based on tabulations of a five-percent sample of the 1940 census returns, multiplied uniformly by 20. Exact agreement is not to be expected between these sample tabulations and tabulations of the complete returns. An analysis of the statistics based on tabulations of the five-percent sample of the population for items that were obtained also for the total population indicates that in 95 percent of the cases the sample statistics differ from the complete census statistics by less than 5 percent for all numbers of 10,000 or more, by less than 10 percent for numbers between 5,000 and 10,000, and by less than 20 percent for numbers between 2,000 and 5,000. Somewhat larger variations may be expected in numbers below 2,000. Even for these small numbers, however, the majority of the differences between the sample and complete statistics are less than 10 percent, although much larger differences occasionally occur.

In a forthcoming technical report there will be a detailed exposition of the sampling method, descriptions of the various samples that were taken, and comparisons between the samples and complete counts. The purpose of the report will be to assist in evaluating the data that are published on the basis of samples.