

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

THE LABOR FORCE

(Sample Statistics)

Part 2: Occupational and Industrial  
Characteristics

*Bureau of the Census  
Library*

Prepared under the supervision of

Dr. LEON E. TRUESDELL

Chief Statistician for Population

UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1943

## THE LABOR FORCE (SAMPLE STATISTICS)

This volume is comprised of two parts, with the reports arranged as follows:

### Part 1. General Characteristics:

Employment and Personal Characteristics  
Characteristics of Persons Not in the Labor Force  
Employment and Family Characteristics of Women  
Wage or Salary Income in 1939  
Education, Occupation, and Household Relationship  
of Males 18 to 44 Years Old

### Part 2. Occupational and Industrial Characteristics:

Industrial Characteristics  
Occupational Characteristics  
Usual Occupation



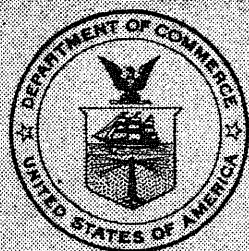
DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS



5TH CENSUS

THE UNITED STATES

1940



# POPULATION

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Industrial  
Characteristics

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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.

Special Reports.

### 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 upon the tabulations of a 5-percent sample of the population returns, and presents data on the personal and economic characteristics of the men and women in each industry at the time of the 1940 census. These statistics were designed primarily for the analysis of the industrial structure of the American labor force prior to the impact of war on the national economy. Many of the data were made available to war agencies considerably in advance of publication for use in planning manpower and production programs. 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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# INDUSTRIAL CHARACTERISTICS

## INTRODUCTION

### GENERAL

This report presents data on the personal and economic characteristics of the men and women in each industry, based on tabulations of a five-percent sample of the returns of the Sixteenth Decennial Census of Population, taken in April 1940.<sup>1</sup> The subjects included are color, nativity and citizenship, age, employment status, class of worker, major occupation group, hours worked during the week of March 24 to 30, 1940, months worked in 1939, and duration of unemployment. 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 data presented in this report, together with the industry statistics shown in Volume III of the Reports on Population, entitled "The Labor Force," constitute a body of information that describes the industrial structure of the American labor force in a peace-time economy. The various combinations of industrial data with personal and economic characteristics presented in these reports were designed, however, to provide material needed by war manpower and production agencies, as well as by other agencies and persons interested in labor force data. Statistics showing the age, class of worker, and occupational skill of the men and women engaged in the various industries just prior to the impact of the war production program, are useful in estimating the characteristics of the workers who could be released for war work through the curtailment of less-essential industrial activities. The age data for men in each industry can be used to evaluate the effect of alternative Selective Service induction policies on the various industries, and to measure the resulting needs for replacement. The figures also suggest opportunities for greater utilization of women in the war effort, and of minority groups, such as nonwhite and foreign-born workers.

### RELATED REPORTS

This report supplements the industry data based on tabulations of the complete census returns which are presented for the United States, each State, and large cities, in Volume III of the Reports on Population, entitled "The Labor Force." Data on most of the subjects shown here for each of 132 industries are presented in Volume III in terms of an 82-item consolidated industry grouping; the statistics in that volume, however, are given for each State and each city of 250,000 or more, as well as for the four broad regions shown in this report. In addition, similar data are also shown in Volume III for nonwhites in each Southern State, each Southern city of 250,000 or more, and each of the 16 Northern and Western cities in which the nonwhite population numbered 50,000 or more, or constituted 10 percent or more of the total population. The cross classifications presented in this report for wage or salary workers only are shown for all workers in Volume III; conversely, certain of the cross classifications presented here for all workers, are limited to wage or salary workers in the latter publication. The number of men and women in each of the 132 industries which comprise the complete 1940 census industry classification is given in Volume III for each State and each city of 100,000 or more. The detailed industrial distribution of nonwhites is also shown for Southern States, Southern cities of 100,000 or more, and 16 selected Northern and Western cities. Data on the racial distribution of persons in each of the 82 industries are presented for each State. In addition, Volume III gives sta-

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

tistics for persons in the labor force on such subjects as occupation, wage or salary income in 1939, and marital status, as well as on most of the subjects shown here.

Industry statistics for small areas, based on a 45-item consolidated grouping of the 132-item industry list used in this report, are presented 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 employment status of persons 14 years old and over, and class of worker and major occupation group for employed persons.

This report is one of a series of publications under the general title "The Labor Force--Sample Statistics." The specific titles and a brief summary of the subjects covered in the reports closely related to industry statistics are as follows:<sup>2</sup>

**Occupational Characteristics.**—Statistics on occupation by color, age, years of school completed, class of worker, months worked in 1939, and other subjects, for experienced persons in the labor force (except on public emergency work), for the United States and for regions; data on the occupational distribution of employed persons in each industry, for the United States.

**Wage or Salary Income in 1939.**—Statistics on wage or salary income and receipt of other income in 1939 for wage or salary workers by months worked in 1939, industry, age, and other characteristics, for other persons in the labor force, and for persons not in the labor force, for the United States, geographic divisions, States, and large cities.

**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 age, color, and marital status, for the United States and regions, urban and rural.

### GEOGRAPHIC AREAS

Industry statistics by age, class of worker, and major occupation group are presented in this report for each of four regions. The accompanying map shows the States included in each of these four regions. 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 industry 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.

Although many of the data in this report are shown for the United States only, statistics cross classifying each of the 132 industries with the characteristics presented here are available for each of the four regions, by urban-rural residence. In addition, data on the usual industry of persons on public emergency work and of experienced workers seeking work are available for each of the four regions, by urban-rural res-

<sup>2</sup> At the time this report goes to press in May 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.

idence, in terms of the complete 1940 census industry classification.

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, rural-nonfarm, and rural-farm 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, and is subdivided into the rural-farm population, which comprises all rural residents living on farms, and the rural-nonfarm population, which comprises the remaining rural population.

#### 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 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 old and over.....	101,015,740	50,543,840	50,471,900	100.0	100.0	100.0
In labor force.....	52,956,280	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.....	28,585,300	273,760	28,311,540	28.4	0.5	56.3
In school.....	9,034,550	4,593,240	4,441,310	8.9	9.1	8.8
Unable to work.....	5,221,500	2,953,400	2,268,100	5.2	5.8	4.5
In institutions.....	1,142,340	745,940	396,400	1.1	1.5	0.8
Other.....	1,978,530	1,200,540	777,990	2.0	2.4	1.5
Employment status not reported.....	1,987,140	822,160	1,164,980	2.0	1.6	2.3
<b>LABOR FORCE BY EMPLOYMENT STATUS</b>						
In labor force.....	52,956,280	39,958,800	13,007,480	100.0	100.0	100.0
Employed (exc. emerg. work).....	45,381,850	34,102,440	11,279,410	85.7	85.3	86.7
At work.....	44,203,740	33,251,600	10,952,140	83.5	83.2	84.2
With a job.....	1,177,620	850,840	326,780	2.2	2.1	2.5
On public emergency work.....	2,452,440	2,003,540	448,900	4.6	5.0	3.5
Seeking work.....	5,132,480	3,852,820	1,279,660	9.7	9.6	9.8
Experienced workers.....	4,401,500	3,414,500	987,000	8.3	8.5	7.6
New workers.....	780,980	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 lay-off 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 whom 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 industries, however, the proportion of employed persons who were not at work during the census week was substantial. It was relatively high in seasonal industries and in industries in which large-scale lay-offs had occurred shortly before the time of the census. The number of persons with a job but not at work should therefore be taken into account in an analysis of time lost from work. Table 13 presents the number of men and women at work, and the number with a job but not at work, in each industry, for the United States, urban and rural.

Due to such factors as 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."<sup>3</sup>

**Difficulties in employment status classification.**<sup>3</sup>—It is comparatively 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. 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-farm 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 for whom employment status was 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

<sup>3</sup> For a more complete discussion of this subject, see Part 1 of Volume III of the Reports on Population.

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 the 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.<sup>4</sup>—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 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 age and sex classes of the population, 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.

#### INDUSTRY

In the 1940 census an inquiry relating to industry<sup>5</sup> 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, that is, 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 industry<sup>6</sup> 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 referred to "usual" industry, that is, the industry in which a person was engaged while practicing the occupation he regarded as his usual occupation and at which occupation he was physically able to work. For both of these inquiries, however, the enumerators were in-

structed to make no industry entry for persons who had never worked full time for one month or more. It should be noted, therefore, that all industry data for persons seeking work are restricted to experienced workers, since "new workers" had never worked on a job for one month or more.

The data presented in this report are based upon the first of the two industry inquiries mentioned in the preceding paragraph; hence, the statistics refer to "current" or "last" industry, rather than to "usual" industry. These tables do not give any 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 industry of their most recent nonemergency job or of the job in which they were usually engaged.

The statistics for most of the subjects shown in the detailed tables 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 industry. This separation makes possible an analysis of the differences in characteristics between the persons employed in a specific industry and the persons whose last jobs were in that industry but who were seeking work at the time of the census. In tables 15 and 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 industry classification.—The 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 has been adopted by most governmental agencies. It 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, will indicate the probable extent of difference in other items, and will list the items that are not comparable.

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

Difficulties in the classification of industries.—The task of classifying the enumerators' returns on industry would be difficult enough if all the returns were specific and accurate descriptions of the industries concerned, since it involves the assignment of many thousands of different designations to one or another of the 132 titles comprising the 1940 census industry classification. It is made more difficult, however, by the failure of many enumerators to return exact designations of specific industries. Indefinite returns resulted in some cases from carelessness on the part of the enumerators or from their lack of knowledge of industrial designations. In other cases, the housewives and others from whom the enumerators obtained their information did not know the specific industries of the persons to whom the questions referred.

In many instances indefinite industry returns can be assigned to the proper classification through an examination of other entries on the schedule. Assistance is also available, sometimes, 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.

<sup>4</sup> For a more complete discussion of this subject, see Part I of Volume III of the Reports on Population.

<sup>5</sup> For exact phrasing of the questions, complete definitions, and other technical details, see the instructions to enumerators which are reproduced in Part I of Volume III of the Reports on Population.

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 saw-mill, 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.).

The user of statistics for workers classified by industry should keep in mind, therefore, that the figures for those 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. Additional detail regarding classification problems will be presented in a subsequent report.

**Coverage of industry classifications "Government," "Domestic service," and "Agriculture."**—The industry classification "Government (not elsewhere classified)" does not include all persons employed by governmental agencies. Persons are included in this classification 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 tax collector is included in the industry classification "Government," 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 Volume III of the Reports on Population.

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.

**Comparability with industry data from earlier censuses.**—No comparisons of the 1940 census data on industry 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 industry statistics were presented in previous censuses, are not directly comparable with the 1940 labor force.

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

Third, the industries 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 industries. In the 1940 census, on the other hand, the inquiries were designed to obtain current industry for employed workers and latest industry for persons seeking work.

Finally, the 1940 classification of industry differs from that used in previous censuses. Studies are now being made of the relationships between the 1940 and 1930 classifications. Comparison must await the results of these studies, which will show the items that correspond in the classifications for the two censuses, the probable extent of difference in other items, and the items that are not comparable. These studies will facilitate the comparison of 1940 industry statistics with data from earlier censuses.

**Comparability with industry data from other sources.**—The statistics on industry collected by other agencies are not entirely comparable with census data because of differences in the methods of obtaining the information. Industry 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 industry. 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 industries and to select the information most essential for accurate classification.

In most of the industry statistics based upon reports obtained from employers, the employees of a given establishment are classified according to the major industrial activity of the establishment. Thus, persons employed in the garage of a department store, or the power plant of a steel rolling mill are usually classified in the department store or steel mill industries, respectively. The 1940 census enumerators were similarly instructed that persons working in a department or other unit incidental to the main work of an establishment should be reported as engaged in the major industrial activity of the establishment. However, the relationship between major and auxiliary activities of a given establishment is much more readily identifiable from the records of the establishment in which a given person is employed than from the member of the person's household who supplies information concerning him to the census enumerator. Accordingly, the figures shown here for those industrial activities which are frequently subsidiary to other activities are likely to be greater than corresponding statistics obtained from reports by employers.

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 industry 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 in mining. 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 presented in this report include cross classifications of the men and women in each industry with color, nativity, citizenship, and age. 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, nativity and citizenship, and age of the persons in each industry since corresponding statistics for persons on public emergency work are not shown. The industrial and personal characteristics of public emergency workers are materially different from those of the other workers in the labor force.

**Color.**—Statistics on the industrial distribution of whites and nonwhites are presented in tables 1 and 2. The latter group 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. Nonwhites are principally Negroes, especially in the South, but include significant numbers of Indians, Chinese, and Japanese in the West.

Volume III of the Reports on Population presents, for each State, distributions by race ("White," "Negro," and "Other races") for employed persons (except on public emergency work), and for experienced workers seeking work, for each of the 82 industry groupings which comprise the intermediate industry list. Industry statistics for nonwhites, in terms of this intermediate list, are also available for selected cities in that report.

Volume II of the Reports on Population presents the industrial distribution of nonwhite employed persons (except on public emergency work), in terms of a condensed 45-item industry list, for each county, city of 10,000 or more, and metropolitan district, in the South.

**Nativity and citizenship.**—Tables 1 and 2 also present the only statistics on industry by nativity and citizenship to be published in the 1940 census reports. In the classification by nativity, a person born in the United States or in any of its territories or possessions is counted as native. Likewise included as native are the small number of persons who, although born in a foreign country or at sea, were American citizens by

birth because their parents were American citizens. Nativity is not shown for nonwhites in this report since less than two percent of all nonwhites are foreign born.

The classification of the foreign-born white in regard to citizenship embraces two major categories, naturalized citizen and alien. The alien category is further subdivided into those having first papers and those who have taken no steps toward becoming naturalized ("No papers"). There is an additional group designated "Citizenship not reported," comprising persons for whom the enumerator secured no report as to citizenship.<sup>6</sup>

The "first papers" constitute the declaration of intention to become a citizen of the United States, a declaration which may be made by any eligible alien 18 years of age and over at any time after arrival in the United States. Citizenship by naturalization is open only to white persons, persons of African nativity or descent, and descendants of races indigenous to the Western Hemisphere. Foreign-born Chinese, Japanese, and other Asiatics are not eligible for citizenship except under rare circumstances.

**Age.**—The distributions by age of employed wage or salary workers (except on public emergency work)<sup>7</sup> and of wage or salary workers seeking work in each industry are shown for the United States and for regions in tables 3 to 6.

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 because of the special interest in the industrial attachment of children.

Volume III of the Reports on Population presents, for States and large cities, the age distribution of all workers (as compared with the wage or salary workers shown here) who were employed (except on public emergency work) or were experienced workers seeking work, in terms of the 82-item intermediate industry list. Similar statistics for nonwhites are also given for selected areas. The age classification used in that volume is somewhat less detailed than the one used here, with the exception that, in the former, workers 65 to 74 years old are shown separately.

#### CLASS OF WORKER

Statistics showing the class-of-worker distribution of employed persons (except on public emergency work) and of experienced workers seeking work in each industry are presented in table 7 for the United States, by urban-rural residence. For employed persons only, regional data on this subject are presented in table 8. The classification by class of worker for employed persons, like the industry classification, refers to the current job during the week of March 24 to 30, 1940. For experienced workers seeking work, this classification refers to the last job of one month or more. 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 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. Industry data for these two groups are not presented separately in this report, but are shown in Volume III of the Reports on Population.

**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 239,081, 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 workers in the various industries 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. Only 5.2 percent of the experienced 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 21.6 percent of the employed workers were employers and own-account workers, and 3.1 percent were unpaid family workers (table II). 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 II. CLASS OF WORKER OF EMPLOYED PERSONS (EXCEPT ON PUBLIC EMERGENCY WORK) AND OF EXPERIENCED WORKERS SEEKING WORK, BY SEX, FOR THE UNITED STATES: MARCH 1940

[Statistics based on a 5-percent sample]

EMPLOYMENT STATUS AND CLASS OF WORKER	Total	Male	Female
Employed (exc. emerg. work).....	45,381,360	34,102,440	11,278,920
Wage or salary workers.....	34,171,260	24,264,340	9,906,920
Employers and own-account workers.....	9,793,840	8,835,700	957,640
Unpaid family workers.....	1,416,760	1,002,400	414,360
Seeking work, experienced.....	4,401,500	3,414,500	987,000
Wage or salary workers.....	4,151,160	3,193,860	957,300
Employers and own-account workers.....	228,160	202,400	95,760
Unpaid family workers.....	22,180	18,240	3,940
Percent Distribution			
Employed (exc. emerg. work).....	100.0	100.0	100.0
Wage or salary workers.....	75.3	71.2	87.8
Employers and own-account workers.....	21.6	25.9	8.5
Unpaid family workers.....	3.1	2.9	3.7
Seeking work, experienced.....	100.0	100.0	100.0
Wage or salary workers.....	94.3	93.5	97.0
Employers and own-account workers.....	5.2	5.9	2.6
Unpaid family workers.....	0.5	0.5	0.4

In the interpretation of the data for rural-farm areas, it should be borne in mind that more than one million of the employed workers in these areas were engaged in unpaid family work in agriculture, which is often little better than a make-shift 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.

The class-of-worker distribution of employed persons (except on public emergency work), and of experienced workers seeking work, for each of the 82 industries which comprise the intermediate industry list are presented for States and large cities in Volume III of the Reports on Population. That volume also includes similar data for nonwhites in selected areas.

<sup>6</sup> In the 1940 census there were 825,072 foreign-born white persons in the United States reported as of unknown citizenship status. It would appear that this group consisted predominantly of persons who had not applied for any papers or who had applied for their first papers only. This conclusion is based partly upon the fact that the total number of foreign-born aliens plus those of unknown citizenship status is approximately equal to the number of aliens registered under the Alien Registration Act of 1940.

<sup>7</sup> See "Class of worker," below.

## MAJOR OCCUPATION GROUP

The broad occupational distribution of the wage or salary workers in each industry is presented in tables 9 to 12, for the United States and for regions. For employed persons (except on public emergency work), the classifications both by class of worker and by occupation refer to the job at which these persons were employed during the census week. For persons seeking work, these classifications refer to the last job of one month or more.

The occupation grouping used in these tables represents a combination of the 11 principal classifications in the complete 1940 census occupation list of 451 titles.<sup>a</sup> The following consolidations have been made:

"Farmers and farm managers" have been combined with "Proprietors, managers, and officials, except farm" to form the group "Proprietors, managers, and officials, including farm."

"Domestic service workers" have been combined with "Service workers, except domestic and protective" to form the group "Service workers, except protective."

"Farm laborers and foremen" have been combined with "Laborers, except farm and mine" to form the group "Laborers, including farm."

These consolidations have been made because the industrial distribution provides, for all practical purposes, the required differentiation. All "Farmers and farm managers" and "Farm laborers and foremen" are in the industry "Agriculture," which includes only a small number of "Proprietors, managers, and officials, except farm" and of "Laborers, except farm and mine." A similar situation exists with regard to "Domestic service workers" and the industry "Domestic service," which includes only a small number of "Service workers, except domestic and protective." The number of persons in each of the 11 principal occupation groups is presented in the report entitled "The Labor Force—Sample Statistics, Occupational Characteristics."

The data in these tables show regional differences in the characteristics of a given industry as reflected by variations in the broad occupational composition of the industry. These tables also show the differences in occupational utilization of men and women both within a specific industry and among the several industries. The data provide some indication of occupational differences in unemployment rates for a specific industry, as well as industrial differences in unemployment rates for a specific major occupation group.

Volume III of the Reports on Population presents, for States and large cities, statistics on the major occupation group distribution of employed persons (except on public emergency work) in each of the 82 intermediate industry groupings. Similar data for nonwhites are also shown for selected areas. The statistics in that volume, which are presented in terms of the same occupational groups as used in this report, include all employed persons (except on public emergency work); that is, the data cover employers and own-account workers, and unpaid family workers, in addition to the wage or salary workers shown here.

A more detailed cross classification of occupation and industry is presented in the report entitled "The Labor Force—Sample Statistics, Occupational Characteristics." In that report the number of employed males (except on public emergency work) in each of 116 occupations, and the number of employed females (except on public emergency work) in each of 52 occupations, are shown for each of 132 industries.

## HOURS WORKED DURING THE CENSUS WEEK

Tables 13 and 14 present statistics on the number of hours worked during the week of March 24 to 30, 1940, by persons who were at work (except on public emergency work) during that week, for the United States, urban and rural.

The groupings of hours worked that appear in these tables are designed to show the length of the usual work week in each industry 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 standards 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 industries 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 industry, and that many persons working part time do not desire more work. In addition, it should be

<sup>a</sup> The complete list of 451 titles is shown in an appendix to the report entitled "The Labor Force—Sample Statistics, Occupational Characteristics."

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 industries as for nonseasonal industries.

Volume III of the Reports on Population presents, for States and large cities, a somewhat more detailed classification of hours worked than is shown in this report, but the data are limited to the wage or salary workers in each of the 82 intermediate industry groupings. Similar data for nonwhites are also shown for selected areas.

## MONTHS WORKED IN 1939

Statistics on the number of months worked in 1939 by the persons in each industry are presented in tables 15 and 16, for the United States. The group "Experienced workers in the labor force (except on public emergency work)," for whom the statistics are presented in these tables, is a combination of the two employment status categories "Employed persons (except on public emergency work)" and "Experienced workers seeking work." The classification by employment status refers to activity during the week of March 24 to 30, 1940. The data are shown for (a) wage or salary workers, and (b) employers, own-account workers, and unpaid family workers combined. The figures are less significant and less reliable for nonwage-or-salary workers than for wage or salary workers.

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 for pay or profit, including public 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 returns were only approximate, and did not represent valid statements of the precise number of weeks of work.<sup>a</sup> 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 2 months.....	1 to 6 weeks
2 months.....	7 to 10 weeks
3 months.....	11 to 14 weeks
4 or 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

The data on months worked provide an indication of the continuity of employment, and are helpful in the analysis of unemployment in various industries. 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

<sup>a</sup> 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.

# INTRODUCTION

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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 hours worked during the census week for industries in which there is much part-time or casual employment, and for seasonal industries, 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 industry 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 industry to another during 1939 and early 1940 was probably not great enough to distort the distribution by months worked for the majority of industries, but substantial shifts may have occurred in particular industries in some areas.

Data on months worked in 1939, limited to wage or salary workers (except on public emergency work) in each of the 82 intermediate industry groupings, are presented for States and large cities in Volume III of the Reports on Population. Similar statistics for nonwhites in selected areas are also shown in that report.

## DURATION OF UNEMPLOYMENT

Table 17 presents statistics on the duration of unemployment of experienced persons seeking work in each industry, for the United States. The duration of unemployment 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 person last began to seek work.

Duration of unemployment was reported on the 1940 census schedules in terms of weeks, but in this report the data are presented in terms of months.<sup>10</sup> 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 to 59 months.....	150 to 249 weeks
60 or more months.....	250 or more weeks

These statistics indicate the severity of unemployment in each industry and are therefore useful as a supplement to other measures of unemployment by industry. For industries 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 failed to report were similar to those of the persons who did report.

Statistics on duration of unemployment limited to the wage or salary workers in each of the 82 intermediate industry groupings are presented for States and large cities in Volume III of the Reports on Population. Similar data for nonwhites in selected areas are also shown in that volume.

## 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 count. The purpose of the report will be to assist in evaluating the data that are published on the basis of the samples.

## DERIVATION OF DATA FOR PERSONS OTHER THAN WAGE OR SALARY WORKERS

The cross classifications of industry by age and by major occupation group, which are shown in this report for wage or salary workers only, are presented for all workers in Volume III of the Reports on Population. Conversely, the cross classifications by hours worked during the census week and by duration of unemployment, which are shown here for all workers, are presented for wage or salary workers only in Volume III. Considerable caution should be exercised in attempting to derive distributions for workers other than wage or salary workers by obtaining the differences between sample and complete-count figures. The residuals obtained in this manner, especially for industries with small numbers of such workers, may be seriously affected by sampling variation and by undetected errors in processing the data.

<sup>10</sup> 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, 36 to 59 months, and 60 or more months, representing 1, 2, 3 and 4, and 5 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.

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

