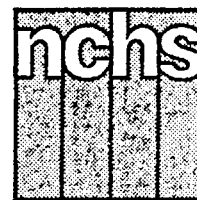


# Advance Data



From Vital and Health Statistics of the National Center for Health Statistics

## Health Characteristics of Workers by Occupation and Sex: United States, 1983–85

by John Gary Collins, M.B.A., and Owen T. Thornberry, Ph.D., Division of Health Interview Statistics

During the past two decades there has been a continuous increase of women in the labor force, in absolute numbers and as a percent of the total. For example, the annual average number of women in the labor force increased from 37.5 million in 1975–76 to 49.2 million in 1983–85. Whereas women accounted for 40.5 percent of the labor force in 1975–76, by 1983–85 44 percent of the labor force was female (NCHS, 1980). Because women have become a significant proportion of the labor force, it is both possible, and timely, to compare the health characteristics of men and women in the labor force by their occupational categories.

To accomplish this, national estimates of health characteristics of persons 18 years of age and over in the civilian noninstitutionalized population of the United States who were in the labor force for the years 1983–85 are presented in this report. These estimates include an occupational profile; percent with fair or poor respondent-assessed health status; percent limited in activity because of chronic conditions; percent with 8 bed days or more in the past 12 months; numbers of restricted-activity, bed disability, and work loss days per person per year; percent with a physician visit in the

past year; physician visits per person per year; hospital discharges per 100 persons per year; average length of hospital stay; incidence rate of acute conditions per 100 persons per year; and the prevalence rate of selected chronic conditions per 1,000 persons per year. These estimates are based on data collected by the National Center for Health Statistics (NCHS) by means of the National Health Interview Survey (NHIS). Data are shown for males and females and for 13 occupational groupings.

It should be noted that health characteristics among the occupational groupings may be affected by a number of demographic characteristics. A more detailed analysis of these data by age, sex, race, family income, and education of the individual will appear in a forthcoming NCHS publication, "Health Characteristics by Occupation and Industry of Employment: United States, 1983–85" (NCHS, In press). NHIS data on health characteristics for the total civilian noninstitutionalized population are presented annually in the NCHS publication "Current Estimates From the National Health Interview Survey" (NCHS, 1986a, 1986b, 1986c, 1987, and 1988).

In addition, several NCHS publications have used occupation and

industry as an analytic variable in addressing health characteristics such as respondent-assessed health status, disability days, and hospital discharge data (NCHS, 1983a, 1983b, 1985a, and 1986d).

### Highlights

- Women account for 94 percent of the labor force in private household occupations and about 80 percent of those in administrative support occupations.
- More than one in every four women in the labor force work in administrative support occupations.
- Women in the labor force reported more restricted-activity, bed disability, and work loss days per person than did their male counterparts. Particularly high rates were reported among females in transportation and material moving occupations and among machine operators, assemblers, and inspectors.
- Almost 86 percent of women in transportation and material moving occupations reported having a doctor visit in the past year. Females in this occupation also averaged a large number of doctor visits, 6.5 per person per year.

- Hospital discharge rates were higher for women in the labor force than for men, but the length of stay was higher among males.
- Females working in transportation and material moving occupations reported a hospital discharge rate 47 percent higher than for all currently employed women.
- The incidence rate of acute conditions among women in protective service occupations and transportation and material moving occupations was double the rate of their male counterparts.
- About one of every four women in transportation and material moving occupations; precision production, craft, and repair occupations; and farming, forestry, and fishing occupations reported having chronic sinusitis.
- The rate of hearing impairments among men in the labor force was almost double that of women. Men working as machine operators, assemblers, and inspectors; in farming, forestry, and fishing occupations; and in precision production, craft, and repair occupations reported the highest prevalence rates of hearing impairments.
- Almost one out of every five women working in private household occupations had health status assessed as fair or poor.

## Background

Information from the NHIS conducted by NCHS is based on data collected in a continuing nationwide survey by household interview. Each week a probability sample of the civilian noninstitutionalized population of the United States is interviewed by personnel of the U.S. Bureau of the Census. Information is obtained about the health and other characteristics of each member of the household.

One of the strengths of the NHIS is the ability to combine data over multiple years. This increases the stability of the estimates because augmenting the sample size leads to smaller sampling errors. Combining data over time is possible because of

the sampling design of NHIS and its use of standard questions over several years. Combining data is particularly desirable when making estimates for relatively rare events or population subgroups—in this case, occupational groupings.

Data for this report are based on information obtained during 1983, 1984, and 1985, and annual averages for these three years are presented. The questionnaires for 1983, 1984, and 1985 are shown in their entirety in the "Current Estimates From the National Health Interview Survey" reports for those years (NCHS, 1986a, 1986b, and 1986c).

A brief description of methods and procedures used in NHIS is given in the "Technical notes" section of this report.

## Occupational profile

The labor force for the years 1983–85 was estimated to be 111.8 million persons, of whom 62.6 million or 56.0 percent were males and 49.2 million or 44.0 percent were females.

Table 1 shows the percent distribution of the labor force occupations by sex. Whereas females made up 44 percent of the labor force, there was a large difference in the percent of women in various occupations. Only 8.5 percent of persons in precision production, craft, and repair occupations and 8.2 percent of those in transportation and material moving

occupations were female. Conversely, 94.0 percent of workers in private household occupations and 79.9 percent of those in administrative support occupations were women.

Table 2 shows the percent distribution of males and females in the labor force by occupation. More than half of the female labor force was concentrated in three occupational groups: administrative support occupations, 26.3 percent; service occupations, 13.9 percent; and professional specialty occupations, 13.5 percent. The occupational distribution among males in the labor force was not as concentrated. Precision production, craft, and repair occupations were most prevalent, accounting for 18.9 percent of males in the labor force.

## Health characteristics

### Respondent-assessed health status

In the NHIS, health status is based on the respondent's assessment, not on clinical evidence. Table 3 shows the percents of males and females in the labor force whose health was assessed to be either fair or poor, by occupational group. For the total labor force, 7.1 percent of females had their health assessed as fair or poor, whereas 6.4 percent of males had. There was a large variation among women in different occupational groups regarding the assessment of

**Table 1. Percent distribution of persons 18 years of age and over in the labor force by sex, according to employment status and occupation: United States, 1983–85**

<i>Employment status and occupation</i>	<i>All persons</i>	<i>Male</i>	<i>Female</i>
<b>Percent distribution</b>			
Total labor force . . . . .	100.0	56.0	44.0
Currently employed . . . . .	100.0	56.2	43.8
Executive, administrative, and managerial occupations . .	100.0	65.8	34.2
Professional specialty occupations . . . . .	100.0	50.8	49.2
Technicians and related support occupations . . . . .	100.0	50.8	49.2
Sales occupations . . . . .	100.0	52.5	47.5
Administrative support occupations, including clerical . .	100.0	20.1	79.9
Private household occupations . . . . .	100.0	6.0	94.0
Protective service occupations . . . . .	100.0	85.5	14.5
Service occupations, except protective and household . .	100.0	34.0	66.0
Farming, forestry, and fishing occupations . . . . .	100.0	84.5	15.5
Precision production, craft, and repair occupations . . .	100.0	91.5	8.5
Machine operators, assemblers, and inspectors . . . . .	100.0	58.8	41.2
Transportation and material moving occupations . . . .	100.0	91.8	8.2
Handlers, equipment cleaners, helpers, and laborers . .	100.0	82.3	17.7
Unknown occupation and military . . . . .	100.0	55.1	44.9
Currently unemployed . . . . .	100.0	53.1	46.9

**Table 2. Percent distribution of persons 18 years of age and over in the labor force by employment status and occupation, according to sex: United States, 1983-85**

Employment status and occupation	Percent distribution	
	Male	Female
Total labor force . . . . .	100.0	100.0
Currently employed . . . . .	93.4	92.6
Executive, administrative, and managerial occupations . . . . .	13.3	8.8
Professional specialty occupations . . . . .	11.0	13.5
Technicians and related support occupations . . . . .	2.6	3.3
Sales occupations . . . . .	9.7	11.2
Administrative support occupations, including clerical . . . . .	5.2	26.3
Private household occupations . . . . .	0.1	1.6
Protective service occupations . . . . .	2.2	0.5
Service occupations, except protective and household . . . . .	5.6	13.9
Farming, forestry, and fishing occupations . . . . .	4.3	1.0
Precision production, craft, and repair occupations . . . . .	18.9	2.3
Machine operators, assemblers, and inspectors . . . . .	7.4	6.6
Transportation and material moving occupations . . . . .	6.6	0.8
Handlers, equipment cleaners, helpers, and laborers . . . . .	4.8	1.3
Unknown occupation and military . . . . .	1.6	1.7
Currently unemployed . . . . .	6.6	7.4

**Table 3. Percent of males and females 18 years of age and over in the labor force with respondent-assessed health status of fair or poor, by employment status and occupation: United States, 1983-85**

Employment status and occupation	Fair or poor assessed health status	
	Male	Female
	Percent	
Total labor force . . . . .	6.4	7.1
Currently employed . . . . .	6.0	6.7
Executive, administrative, and managerial occupations . . . . .	3.8	4.4
Professional specialty occupations . . . . .	2.8	3.6
Technicians and related support occupations . . . . .	2.8	5.6
Sales occupations . . . . .	5.0	6.3
Administrative support occupations, including clerical . . . . .	5.2	5.2
Private household occupations . . . . .	*10.0	19.0
Protective service occupations . . . . .	7.3	*6.9
Service occupations, except protective and household . . . . .	7.9	9.7
Farming, forestry, and fishing occupations . . . . .	10.8	9.4
Precision production, craft, and repair occupations . . . . .	6.9	8.8
Machine operators, assemblers, and inspectors . . . . .	7.8	11.9
Transportation and material moving occupations . . . . .	7.8	7.6
Handlers, equipment cleaners, helpers, and laborers . . . . .	7.8	10.8
Unknown occupation and military . . . . .	8.2	8.4
Currently unemployed . . . . .	11.1	12.0

**Table 4. Percent of males and females 18 years of age and over in the labor force who are limited in activity due to chronic conditions, by employment status and occupation: United States, 1983-85**

Employment status and occupation	Limitation of activity	
	Male	Female
	Percent	
Total labor force . . . . .	9.5	8.4
Currently employed . . . . .	9.2	8.0
Executive, administrative, and managerial occupations . . . . .	8.9	7.5
Professional specialty occupations . . . . .	8.6	7.5
Technicians and related support occupations . . . . .	9.4	7.3
Sales occupations . . . . .	9.4	8.5
Administrative support occupations, including clerical . . . . .	9.7	6.9
Private household occupations . . . . .	*12.0	17.3
Protective service occupations . . . . .	9.2	8.2
Service occupations, except protective and household . . . . .	10.9	8.7
Farming, forestry, and fishing occupations . . . . .	11.4	13.0
Precision production, craft, and repair occupations . . . . .	8.5	8.6
Machine operators, assemblers, and inspectors . . . . .	9.2	8.3
Transportation and material moving occupations . . . . .	8.8	8.9
Handlers, equipment cleaners, helpers, and laborers . . . . .	8.7	9.4
Unknown occupation and military . . . . .	9.5	9.8
Currently unemployed . . . . .	13.8	12.6

their health. Only 3.6 percent of women workers in professional specialty occupations were assessed to be in fair or poor health, compared with 19.0 percent of women working in private household occupations. Private household occupations have a higher percent of older workers than other occupations. This may explain part of this inordinately high rate. More than 1 of every 10 women working as machine operators, assemblers, and inspectors; and handlers, equipment cleaners, helpers, and laborers also were assessed to be in fair or poor health. In contrast, among the men, those in farming, forestry, and fishing occupations were reported to have the highest percent of fair or poor respondent-assessed health—10.8 percent.

### Limitation of activity due to chronic conditions

Table 4 shows the percents of males and females in the labor force who are limited in activity because of chronic conditions. Limitation of activity refers to a person's inability to perform his or her major activity, a limitation in the kind or amount of major activity, or a limitation in the kind and amount of other activities. For the purpose of this analysis, if persons were limited in any of the three ways mentioned above, they were considered to be limited in activity. For the total labor force, 8.4 percent of the females were limited in activity as compared with 9.5 percent of the males. This is interesting because a smaller percent of males perceived their health to be fair or poor than did females. Women in private household occupations reported the highest percent with activity limitation, 17.3 percent, and 13.0 percent of women in farming, forestry, and fishing occupations reported activity limitation. In contrast, only 6.9 percent of females in administrative support occupations reported activity limitation. The large number of young women in these administrative support occupations most likely had an effect on the rate. The rate of activity limitation across occupations was more

**Table 5. Percent of males and females 18 years of age and over in the labor force who had 8 bed disability days or more in the past 12 months, by employment status and occupation: United States, 1983-85**

Employment status and occupation	8 bed days or more in past 12 months	
	Male	Female
	Percent	
Total labor force . . . . .	7.0	11.2
Currently employed. . . . .	6.7	10.8
Executive, administrative, and managerial occupations . . . . .	5.8	10.1
Professional specialty occupations . . . . .	6.0	11.0
Technicians and related support occupations . . . . .	6.7	12.1
Sales occupations . . . . .	6.0	10.8
Administrative support occupations, including clerical . . . . .	7.0	10.4
Private household occupations . . . . .	*10.0	10.4
Protective service occupations . . . . .	7.2	*14.2
Service occupations, except protective and household . . . . .	7.8	11.1
Farming, forestry, and fishing occupations . . . . .	7.0	8.2
Precision production, craft, and repair occupations . . . . .	7.0	12.1
Machine operators, assemblers, and inspectors . . . . .	7.7	10.6
Transportation and material moving occupations . . . . .	7.8	13.5
Handlers, equipment cleaners, helpers, and laborers . . . . .	6.6	9.9
Unknown occupation and military . . . . .	*5.6	10.3
Currently unemployed . . . . .	10.9	17.3

stable among males, although men in farming, forestry, and fishing occupations reported a higher than average rate of limitation of activity.

### Disability

*Bed days in past 12 months*—The percents of males and females in the labor force who reported 8 bed days or more in the past year are shown by employment status and occupation in table 5. More than 11 percent of females reported 8 bed days or more in the past 12 months, compared with 7.0 percent of the males. Women in

farming, forestry, and fishing occupations had a low percent with 8 bed days or more, 8.2 percent; whereas among women in transportation and material moving occupations, 13.5 percent had 8 bed days or more in the past 12 months. The rates among males were relatively stable among the occupational groups.

*Disability days*—The number of restricted-activity, bed disability, and work loss days per person per year for those in the labor force are presented by sex, employment status, and occupation in table 6. Females in the labor

force reported 11.7 restricted activity days per year compared with 8.6 days for males. Females in transportation and material moving occupations had the highest rate, 16.5 days per person. Women machine operators, assemblers, and inspectors also had a high rate of restricted-activity days, 13.9 per person, whereas those working in farming, forestry, and fishing occupations reported only 7.7 days per person per year. Male machine operators, assemblers, and inspectors also reported a high rate of restricted-activity days, 10.4 per person. In contrast, males in sales occupations reported only 6.9 restricted-activity days per person per year.

Females also reported a higher rate of bed disability days per year than did males, 4.6 days compared with 2.9 days. There was not much variation among the occupational groups for either sex.

Currently employed women reported 5.5 work loss days per person per year compared with 4.3 days for males. Women working in transportation and material moving occupations and as machine operators, assemblers, and inspectors reported high rates of work loss days, 9.3 and 8.7 days per person per year, respectively. Females in private household occupations reported only 4.4 days per person per

**Table 6. Number of restricted-activity, bed disability, and work loss days per person per year for males and females 18 years of age and over in the labor force, by employment status and occupation: United States, 1983-85**

Employment status and occupation	Restricted-activity days		Bed disability days		Work loss days	
	Male	Female	Male	Female	Male	Female
Number of days per person per year						
Total labor force . . . . .	8.6	11.7	2.9	4.6	...	...
Currently employed. . . . .	8.2	11.2	2.7	4.2	4.3	5.5
Executive, administrative, and managerial occupations . . . . .	7.2	11.2	2.5	4.4	3.3	5.2
Professional specialty occupations . . . . .	7.3	10.8	2.6	4.2	3.0	4.6
Technicians and related support occupations . . . . .	7.7	12.2	2.6	3.9	3.8	5.7
Sales occupations . . . . .	6.9	10.2	2.3	4.1	3.1	5.1
Administrative support occupations, including clerical . . . . .	8.7	10.6	2.4	4.1	4.0	5.2
Private household occupations . . . . .	*6.4	10.7	*0.4	*3.6	*4.5	4.4
Protective service occupations . . . . .	8.2	*13.3	3.1	*6.6	4.4	*6.1
Service occupations, except protective and household . . . . .	8.0	11.5	2.6	4.4	4.3	5.6
Farming, forestry, and fishing occupations . . . . .	8.2	7.7	3.2	*2.2	5.2	*3.3
Precision production, craft, and repair occupations . . . . .	8.6	12.5	2.8	4.0	4.9	7.5
Machine operators, assemblers, and inspectors . . . . .	10.4	13.9	2.7	4.6	6.3	8.7
Transportation and material moving occupations . . . . .	9.6	16.5	2.8	*5.4	5.7	9.3
Handlers, equipment cleaners, helpers, and laborers . . . . .	8.6	11.7	2.8	*4.7	5.1	7.9
Unknown occupation and military . . . . .	7.1	13.8	*2.7	6.1	2.7	4.3
Currently unemployed . . . . .	14.3	17.9	7.0	9.2	...	...

**Table 7. Utilization of physician services by males and females 18 years of age and over in the labor force, by employment status and occupation: United States, 1983-85**

Employment status and occupation	Physician visits			
	Percent with visit in past year		Visits per person per year	
	Male	Female	Male	Female
	Percent		Number	
Total labor force . . . . .	61.8	78.5	3.3	5.6
Currently employed . . . . .	62.2	78.5	3.2	5.5
Executive, administrative, and managerial occupations . .	66.8	80.4	3.7	6.4
Professional specialty occupations . . . . .	67.2	83.4	3.8	6.3
Technicians and related support occupations . . . . .	67.1	82.1	3.6	6.0
Sales occupations . . . . .	61.3	76.2	3.2	4.9
Administrative support occupations, including clerical . .	63.0	79.6	3.5	5.6
Private household occupations . . . . .	66.0	72.0	*3.8	4.3
Protective service occupations . . . . .	66.4	81.0	3.3	5.7
Service occupations, except protective and household . .	60.4	76.0	2.8	5.1
Farming, forestry, and fishing occupations . . . . .	54.9	72.1	2.6	3.8
Precision production, craft, and repair occupations . . .	59.2	75.1	2.9	5.1
Machine operators, assemblers, and inspectors . . . . .	61.9	74.8	3.2	4.9
Transportation and material moving occupations . . . .	61.6	85.7	3.0	6.5
Handlers, equipment cleaners, helpers, and laborers . .	58.4	74.2	3.1	4.7
Unknown occupation and military . . . . .	53.6	71.4	2.5	6.4
Currently unemployed . . . . .	57.3	78.7	4.2	6.2

year. Work loss days among men were also high for machine operators, inspectors, and assemblers and those in transportation and material moving occupations.

#### Utilization of physician services

The percents of males and females in the labor force who had doctor visits in the past year and the number of doctor visits per year for each sex are shown by employment status and occupation in table 7.

*Percent with physician visit in past year*—Women were more likely than men to have visited a doctor in the past year. Almost four out of five women had seen a doctor in the past year whereas little more than three of five men reported a doctor visit. Females working in transportation and material moving occupations reported that 85.7 percent had a doctor visit in the past year, and 83.4 percent of women working in professional specialty occupations had a visit. In contrast, only 72.0 percent of women in private household occupations and 72.1 percent of those in farming, forestry, and fishing occupations had a doctor visit in the last 12 months. Among males, those in white collar occupations; professional specialty occupations; technician and related support occupations; and executive,

administrative, and managerial occupations reported higher than average percents of workers with a doctor visit in the past year, approximately 67.0 percent. Only 54.9 percent of men in farming, forestry, and fishing occupations had a doctor visit in the previous 12 months.

*Physician visits per person per year*—Females averaged 5.6 doctor visits per year compared with 3.3 visits by males. The visit rate among women ranged from 3.8 visits for those in

farming, forestry, and fishing occupations to 6.5 visits for women working in the transportation and material moving occupations. Women working in executive, administrative, and managerial occupations and professional specialty occupations also reported higher than average physician visit rates. There was little variation in the physician visit rate among males. At the lower end of the spectrum were men working in farming, forestry, and fishing occupations who had 2.6 visits per person per year, whereas at the upper end of the spectrum were men working in professional specialty occupations, who had 3.8 visits per person.

#### Utilization of hospital service

The short-stay hospital discharge rates and the average lengths of stay of males and females in the labor force are shown by employment status and occupation in table 8.

*Short-stay hospital discharges*—The rate of hospital discharges among women was about 28 percent higher than for men, 10.1 compared with 7.9 per 100 hundred persons per year, respectively. Females in transportation and material moving occupations reported a high of 13.8 discharges per 100 persons, whereas women in professional specialty occupations; admin-

**Table 8. Utilization of hospital services by males and females 18 years of age and over in the labor force, by employment status and occupation: United States, 1983-85**

Employment status and occupation	Discharges from short-stay hospitals <sup>1</sup>			
	Discharges per 100 persons per year		Average length of stay	
	Male	Female	Male	Female
	Rate		Number of days	
Total labor force . . . . .	7.9	10.1	6.3	5.5
Currently employed . . . . .	7.5	9.4	6.1	5.4
Executive, administrative, and managerial occupations . .	8.5	9.1	5.7	5.2
Professional specialty occupations . . . . .	6.6	8.6	5.6	5.1
Technicians and related support occupations . . . . .	7.5	11.5	6.5	5.4
Sales occupations . . . . .	6.7	9.2	5.7	5.9
Administrative support occupations, including clerical . .	6.8	8.7	7.0	5.4
Private household occupations . . . . .	*6.0	10.7	*10.0	*5.2
Protective service occupations . . . . .	7.6	*10.3	9.5	*5.9
Service occupations, except protective and household . .	7.7	9.8	7.1	5.5
Farming, forestry, and fishing occupations . . . . .	7.1	8.8	6.7	*5.0
Precision production, craft, and repair occupations . . .	7.7	12.2	5.8	5.2
Machine operators, assemblers, and inspectors . . . . .	9.6	10.9	5.6	5.6
Transportation and material moving occupations . . . .	7.6	13.8	6.2	*4.5
Handlers, equipment cleaners, helpers, and laborers . .	6.0	10.7	6.8	*5.5
Unknown occupation and military . . . . .	7.8	10.2	6.5	*7.1
Currently unemployed . . . . .	12.7	18.3	7.8	6.2

<sup>1</sup>Excludes deliveries.

**Table 9. Incidence rates per 100 persons of all acute conditions among males and females 18 years of age and over in the labor force, by employment status and occupation: United States, 1983-85**

Employment status and occupation	Incidence of all acute conditions	
	Male	Female
	Rate per 100 persons	
Total labor force. . . . .	124.7	172.6
Currently employed. . . . .	126.1	173.6
Executive, administrative, and managerial occupations . . . . .	117.0	196.0
Professional specialty occupations . . . . .	150.9	191.1
Technicians and related support occupations . . . . .	142.6	176.1
Sales occupations . . . . .	114.9	158.7
Administrative support occupations, including clerical . . . . .	145.9	175.7
Private household occupations . . . . .	*74.0	111.5
Protective service occupations . . . . .	132.3	261.2
Service occupations, except protective and household . . . . .	125.0	175.2
Farming, forestry, and fishing occupations . . . . .	97.4	145.7
Precision production, craft, and repair occupations . . . . .	124.6	174.0
Machine operators, assemblers, and inspectors . . . . .	135.0	151.7
Transportation and material moving occupations . . . . .	103.9	208.1
Handlers, equipment cleaners, helpers, and laborers . . . . .	141.6	131.2
Unknown occupation and military . . . . .	103.3	117.6
Currently unemployed . . . . .	105.4	160.5

istrative support occupations; and farming, forestry, and fishing occupations reported only 8.6 to 8.8 discharges per 100 persons.

Among males, the highest discharge rate was among those working as machine operators, assemblers, and inspectors, 9.6 per 100 persons. Men working as handlers, equipment cleaners, helpers, and laborers reported only 6.0 hospital discharges per 100 persons.

*Length of stay*—Whereas the hospital discharge rate among women was higher than that among men, the average length of stay per discharge was lower among women, 5.5 days compared with 6.3 days among males. Although the rate of discharges varied widely among women in different occupations, there was very little difference among women in the average length of stay per discharge in the varying occupational groups.

Among males, those in protective service occupations reported an average length of stay per discharge of 9.5 days, which was 50 percent higher than for all males in the labor force.

### Incidence of acute conditions

Table 9 contains the incidence rates per 100 persons from all acute conditions for males and females 18 years of age and over in the labor force by employment status and occupation. Females had a higher

incidence rate of acute conditions than males, 172.6 per 100 persons compared with 124.7 per 100 persons.

There was a great deal of variation in the incidence rate for women among the occupational groups. Females in private household occupations had an incidence rate of 111.5 per 100 persons whereas women in protective service occupations had a rate of 261.2 per 100 persons. Women in transportation and material moving occupations; executive, administrative, and managerial occupations; and professional specialty occupations also had high incidence rates of 208.1, 196.0, and 191.1 per 100 persons, respectively.

Males in professional specialty occupations had a high incidence rate of 150.9 per 100 persons, whereas men in farming, forestry, and fishing occupations reported only 97.4 acute conditions per 100 persons. Interestingly, the incidence rate among males in transportation and material moving occupations was only 103.9 per 100 persons or about half of the rate of 208.1 reported by females in that occupational group.

### Selected chronic conditions

The rates for selected high prevalence chronic conditions for persons 18 years and over in the labor force are presented by sex, employment status, and occupation in table 10. The

conditions shown are high blood pressure, hay fever, chronic sinusitis, arthritis, hearing impairment, and deformities or orthopedic impairment of the back.

*High blood pressure*—The prevalence rate per 1,000 persons in the labor force from high blood pressure was lower among females than males, 102.6 compared with 118.0 per 1,000. Women in private household occupations reported a very high prevalence rate of 220.1, whereas females in professional specialty occupations reported a rate of only 78.0 per 1,000 persons. Interestingly, the prevalence rate of high blood pressure among males was highest among those in executive, administrative, and managerial occupations, 150.7 per 1,000 persons. The rate among men working as handlers, equipment cleaners, helpers, and laborers was a very low 68.7 per 1,000.

*Hay fever*—Women reported a higher prevalence rate of hay fever than did men, 118.3 per 1,000 persons compared with 98.3. The prevalence rate was particularly high for women working in technician and related support occupations; professional specialty occupations; and executive, administrative, and managerial occupations, 168.4, 151.3, and 142.0 per 1,000 persons, respectively. Female machine operators, assemblers, and inspectors reported a rate of only 59.7 per 1,000. Males working in professional specialty occupations and technician and related support occupations also reported high prevalence rates for hay fever.

*Chronic sinusitis*—The prevalence rate from chronic sinusitis among women was 181.3 per 1,000 compared with 144.8 among men. Females in transportation and material moving occupations; precision production, craft, and repair occupations; and farming, forestry, and fishing occupations reported high rates of 256.1, 235.6, and 234.5 per 1,000, respectively. Rates among women machine operators, assemblers, and inspectors were a relatively low 136.3 per 1,000 persons. In contrast, the higher prevalence rates

**Table 10. Prevalence rates per 1,000 persons of selected chronic conditions among persons 18 years of age and over in the labor force, by sex, employment status, and occupation: United States, 1983-85**

Sex, employment status, and occupation	Condition					
	High blood pressure	Hay fever	Chronic sinusitis	Arthritis	Hearing impairment	Deformity or orthopedic impairment of back
Males						
Rate per 1,000 persons						
Total labor force . . . . .	118.0	98.3	144.8	88.3	102.2	65.1
Currently employed . . . . .	117.7	99.8	146.3	89.5	103.5	64.4
Executive, administrative, and managerial occupations . .	150.7	123.3	159.9	92.8	103.0	65.9
Professional specialty occupations . . . . .	111.4	151.4	150.2	81.7	91.8	62.4
Technicians and related support occupations . . . . .	95.4	144.9	167.9	56.8	94.2	51.9
Sales occupations . . . . .	130.2	111.3	157.9	95.4	78.6	60.4
Administrative support occupations, including clerical . .	120.8	106.4	163.4	72.7	80.0	60.4
Private household occupations . . . . .	*	*80.0	*460.0	*360.0	*	*60.0
Protective service occupations . . . . .	119.6	121.1	137.9	94.6	120.3	85.8
Service occupations, except protective and household . .	111.4	82.1	126.5	76.7	91.5	68.5
Farming, forestry, and fishing occupations . . . . .	101.9	84.6	135.7	152.6	124.5	61.4
Precision production, craft, and repair occupations . . .	118.1	77.6	147.9	100.6	124.3	70.1
Machine operators, assemblers, and inspectors . . . . .	103.8	70.1	145.7	76.8	132.5	58.7
Transportation and material moving occupations . . . . .	119.2	73.9	149.1	81.6	103.8	69.6
Handlers, equipment cleaners, helpers, and laborers . . .	68.7	70.1	87.7	66.4	86.7	61.4
Unknown occupation and military . . . . .	109.3	*54.2	*86.3	*70.2	*66.2	*36.1
Currently unemployed . . . . .	121.9	77.3	124.1	70.9	82.9	74.4
Females						
Total labor force . . . . .	102.6	118.3	181.3	124.0	55.8	82.2
Currently employed . . . . .	102.7	117.8	181.1	122.3	55.9	81.3
Executive, administrative, and managerial occupations . .	101.7	142.0	168.9	128.1	57.0	73.7
Professional specialty occupations . . . . .	78.0	151.3	197.0	95.1	53.3	92.4
Technicians and related support occupations . . . . .	118.5	168.4	190.9	121.0	61.1	93.0
Sales occupations . . . . .	86.8	113.4	180.4	120.3	59.7	85.1
Administrative support occupations, including clerical . .	93.0	123.1	191.8	98.8	44.5	78.4
Private household occupations . . . . .	220.1	*82.7	*146.3	260.8	*81.4	109.4
Protective service occupations . . . . .	*51.7	*43.1	*112.1	*163.8	*73.3	94.8
Service occupations, except protective and household . .	119.7	102.3	172.2	151.2	61.5	83.3
Farming, forestry, and fishing occupations . . . . .	*102.2	*36.1	234.5	178.4	*112.2	*86.2
Precision production, craft, and repair occupations . . .	135.4	114.6	235.6	123.6	66.8	*63.2
Machine operators, assemblers, and inspectors . . . . .	126.2	59.7	136.3	156.7	76.3	69.3
Transportation and material moving occupations . . . . .	*135.1	*102.7	256.1	*175.7	*24.3	*159.5
Handlers, equipment cleaners, helpers, and laborers . . .	*115.9	*86.6	156.1	145.3	*46.4	*60.3
Unknown occupation and military . . . . .	137.6	*63.9	119.2	99.5	*27.0	*30.7
Currently unemployed . . . . .	101.6	124.2	184.1	145.2	55.2	93.3

among males were for those in technician and related support occupations and administrative support occupations.

**Arthritis**—The prevalence rate from arthritis among females was about 40 percent higher than that for males, 124.0 compared with 88.3 per 1,000 persons. Women in private household occupations reported an inordinately high prevalence rate of 260.8, and those in farming, forestry, and fishing occupations had a high rate of 178.4 per 1,000. These rates may be age-related because these occupations have larger proportions of older persons. Women in administrative support occupations and professional specialty occupations reported prevalence rates that were under 100 per 1,000 population. As among fe-

males, the prevalence rate from arthritis was high among males in farming, forestry, and fishing occupations. Men working in technician and related support occupations reported a low prevalence rate from arthritis, 56.8 per 1,000 persons.

**Hearing impairments**—The prevalence rate of hearing impairments per 1,000 persons in the labor force was almost twice as high for males as for females, 102.2 compared with 55.8 per 1,000. About half of the occupational categories among the women had insufficient data for reliability. However, female machine operators, assemblers, and inspectors had a rate of hearing impairments that was almost 40 percent higher than the average for all females in the labor force. Among males, high rates of hearing impairments were found among

machine operators, assemblers, and inspectors; among men in farming, forestry, and fishing occupations; and in precision production, craft, and repair occupations—132.5, 124.5, and 124.3 per 1,000 persons, respectively.

**Deformity or orthopedic impairment of back**—The prevalence rate of deformity or orthopedic impairment of the back was higher among females than males, 82.2 compared with 65.1 per 1,000 persons. Women in private household occupations had a high rate of 109.4 per 1,000 persons. Among males, the highest prevalence was among workers in protective service occupations, a prevalence of 85.8 back impairments per 1,000 persons.

The population figures used in computing rates in this report are found in table 11.

**Table 11. Population distribution of persons 18 years of age and over in the labor force by employment status, occupation, and sex: United States, 1983-85**

<i>Employment status and occupation</i>	<i>All persons</i>	<i>Male</i>	<i>Female</i>
Population in thousands			
Total labor force . . . . .	111,770	62,581	49,189
Currently employed . . . . .	104,045	58,479	45,566
Executive, administrative, and managerial occupations . . . . .	12,616	8,299	4,317
Professional specialty occupations . . . . .	13,514	6,870	6,644
Technicians and related support occupations . . . . .	3,259	1,656	1,603
Sales occupations . . . . .	11,601	6,091	5,510
Administrative support occupations, including clerical . . . . .	16,215	3,262	12,953
Private household occupations . . . . .	836	50	786
Protective service occupations . . . . .	1,595	1,363	232
Service occupations, except protective and household . . . . .	10,353	3,519	6,834
Farming, forestry, and fishing occupations . . . . .	3,218	2,719	499
Precision production, craft, and repair occupations . . . . .	12,966	11,858	1,108
Machine operators, assemblers, and inspectors . . . . .	7,881	4,633	3,249
Transportation and material moving occupations . . . . .	4,522	4,152	370
Handlers, equipment cleaners, helpers, and laborers . . . . .	3,659	3,011	647
Unknown occupation and military . . . . .	1,811	997	814
Currently unemployed . . . . .	7,725	4,102	3,623



## References

- National Center for Health Statistics, C. S. Wilder. 1980. Selected health characteristics by occupation: United States, 1975-76. *Vital and Health Statistics*. Series 10, No. 133. DHHS Pub. No. (PHS) 80-1561. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, P. W. Ries. 1983a. Americans assess their health: United States, 1978. *Vital and Health Statistics*. Series 10, No. 142. DHHS Pub. No. (PHS) 83-1570. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, C. S. Wilder. 1983b. Disability days: United States, 1980. *Vital and Health Statistics*. Series 10, No. 143. DHHS Pub. No. (PHS) 83-1571. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, C. S. Wilder. 1985a. Hospitalization of persons under 65 years of age: United States, 1980-81. *Vital and Health Statistics*. Series 10, No. 152. DHHS Pub. No. (PHS) 85-1580. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, M. G. Kovar and G. S. Poe. 1985b. The National Health Interview Survey design, 1973-84, and procedures, 1975-83. *Vital and Health Statistics*. Series 1, No. 18. DHHS Pub. No. (PHS) 85-1320. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics. 1986a. Current estimates from the National Health Interview Survey: United States, 1983. *Vital and Health Statistics*. Series 10, No. 154. DHHS Pub. No. (PHS) 86-1582. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, P. W. Ries. 1986b. Current estimates from the National Health Interview Survey: United States, 1984. *Vital and Health Statistics*. Series 10, No. 156. DHHS Pub. No. (PHS) 86-1584. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, A. J. Moss and V. L. Parsons. 1986c. Current estimates from the National Health Interview Survey: United States, 1985. *Vital and Health Statistics*. Series 10, No. 160. DHHS Pub. No. (PHS) 86-1588. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, C. S. Wilder. 1986d. Disability days: United States, 1983. *Vital and Health Statistics*. Series 10, No. 158. DHHS Pub. No. (PHS) 87-1586. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, D. A. Dawson and P. F. Adams. 1987. Current estimates from the National Health Interview Survey: United States, 1986. *Vital and Health Statistics*. Series 10, No. 164. DHHS Pub. No. (PHS) 87-1592. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, C. A. Schoenborn and M. Marano. 1988. Current estimates from the National Health Interview Survey: United States, 1987. *Vital and Health Statistics*. Series 10, No. 166. DHHS Pub. No. (PHS) 88-1594. Public Health Service. Washington: U.S. Government Printing Office.
- National Center for Health Statistics, J. G. Collins. In press. Health characteristics by occupation and industry: United States, 1983-85. *Vital and Health Statistics*. Series 10, No. 170. Public Health Service, DHHS, Hyattsville, Md.

---

**Symbols**

- - - Data not available
  - . . . Category not applicable
  - Quantity zero
  - 0.0 Quantity more than zero but less than 0.05
  - Z Quantity more than zero but less than 500 where numbers are rounded to thousands
  - \* Figure does not meet standard of reliability or precision (more than 30-percent relative standard error)
  - # Figure suppressed to comply with confidentiality requirements
-

## Technical notes

The National Health Interview Survey (NHIS) is a continuous, cross-sectional, nationwide survey conducted by household interview. Each week a probability sample of households in the civilian noninstitutionalized population of the United States is interviewed by personnel of the U.S. Bureau of the Census to obtain information on the health and other characteristics of each member of the household. A description of the survey design, methods used in estimation, and general qualifications of the NHIS data is provided in "Current Estimates From the National Health Interview Survey" for 1983, 1984, and 1985 (NCHS, 1986a, 1986b, and 1986c).

The NHIS sample for the 3 years 1983-85 was composed of about 117,000 eligible households, containing approximately 303,000 persons living at the time of interview. The total noninterview rate for the NHIS was about 3.7 percent.

A description of the survey design, methods used in estimation, and general qualifications of NHIS data was published previously (NCHS, 1985b). Because the estimates shown in this

report are based on a sample of the population rather than on the entire population, they are subject to sampling error. Sampling errors for most of the estimates are relatively low. However, where an estimated number, or the numerator or denominator of a rate or percent is small, the sampling error may be large.

An asterisk is placed beside certain figures to indicate more than 30-percent relative standard error. Figures marked with an asterisk are given primarily to allow the reader to combine them with related estimates, thereby possibly producing a more reliable overall estimate for a broader category.

The number of currently employed persons estimated from the NHIS will differ from the estimates prepared from the Current Population Survey (CPS) of the U.S. Bureau of the Census for several reasons. In addition to sampling variability, the estimates include three primary conceptual differences:

1. NHIS estimates are for persons 18 years of age and over; CPS estimates are for persons 16 years of age and over.

2. NHIS uses a 2-week reference period; CPS uses a 1-week reference period.
3. NHIS is a continuing survey with separate samples taken weekly; CPS is a monthly sample taken for the survey week that includes the 12th of the month.

In this report, terms such as "similar" and "the same" mean that no statistically significant difference exists between the statistics being compared. Terms relating to difference (for example, "greater" or "less") indicate that differences are statistically significant. The *t*-test, with a critical value of  $\pm 1.96$  (0.05 level of significance), was used to test all comparisons discussed. Lack of comment regarding the difference between any two statistics does not mean that the difference was tested and found to be not significant.

The estimated standard error parameters and the general rules for determining standard errors for data in this report can be found in the NCHS publication "Health Characteristics by Occupation and Industry: United States, 1983-85" (NCHS, in press).

Recent Issues of *Advance Data From Vital and Health Statistics*

No. 167. AIDS Knowledge and Attitudes for October and November 1988 (In press)

No. 166. AIDS Knowledge and Attitudes of Hispanic Americans (In press)

No. 165. AIDS Knowledge and Attitudes of Black Americans (Issued March 30, 1989)

No. 164. AIDS Knowledge and Attitudes for September 1988 (Issued January 3, 1989)

No. 163. AIDS Knowledge and Attitudes for August 1988 (Issued December 15, 1988)

No. 162. Practice Patterns of the Office-Based Ophthalmologist: NAMCS, 1985 (Issued January 31, 1989)

---

**Suggested citation**

National Center for Health Statistics, J. G. Collins and O. T. Thornberry. 1989. Health characteristics of workers by occupation and sex: United States, 1983-85. *Advance Data From Vital and Health Statistics*. No. 168. DHHS Pub. No. (PHS) 89-1250. Public Health Service. Hyattsville, Md.

---

**Copyright Information**

This report may be reprinted without further permission.

---

U.S. DEPARTMENT OF HEALTH AND  
HUMAN SERVICES  
Public Health Service  
Centers for Disease Control  
National Center for Health Statistics  
3700 East-West Highway  
Hyattsville, Maryland 20782

BULK RATE POSTAGE & FEES PAID PHS/NCHS PERMIT No. G-281
--

---

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

---

To receive this publication regularly, contact  
the National Center for Health Statistics by  
calling 301-436-8500

---

DHHS Publication No. (PHS) 89-1250