# Blood Donor Characteristics and Types of Blood Donations United States-1973 

Statistics on persons giving blood and volume of donations by sex, age, color, family income, education, geographic region, place of residence, labor force status, occupation, veteran status, and selected health indexes. Based on data collected in health interviews during 1973.


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## COOPERATION OF THE BUREAU OF THE CENSUS


#### Abstract

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies.

In accordance with specifications established by the Division of Health Interview Statistics, the Bureau of the Census, under a contractual arrangement, participated in planning the survey and collecting the data.


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# BLOOD DONOR CHARACTERISTICS AND TYPES OF BLOOD DONATIONS 

Abigail J. Moss, Division of Health Interview Statistics

## SUMMARY

In this report characteristics of blood donors and the types of donations they made are presented by demographic and health variables. Data are limited to blood donors from the civilian, noninstitutionalized population of the United States 17-64 years of age.

Approximately $61 / 2$ million persons, 5.3 percent of persons 17-64 years of age, donated blood during a 12 -month period, according to data gathered by the Health Interview Survey during 1973. Any person who reported giving or selling his blood to a blood bank, a hospital, the Red Cross, or any other place during the 12 month period immediately preceding the interview was by definition a blood donor. Many more males than females gave blood: 8.0 percent compared to 2.9 percent of persons of eligible age. More persons aged 25-44 years donated blood ( 6.7 percent) than persons of other ages did (4.3 percent). Proportionately, about twice as many white persons ( 5.6 percent) as persons of other colors ( 2.9 percent) were blood donors. A greater proportion of the population in the higher income brackets donated blood than persons with smaller family incomes did: 6.5 percent of persons with family income of $\$ 10,000$ or more compared with 4.0 percent with incomes less than $\$ 10,000$. Approximately two-thirds of all donors ( 67.1 percent) gave blood one time during the year, whereas only slightly more than 1 in 10 donors ( 13.4 percent) gave three or more times.

An estimated 10.2 million donations were made by the $61 / 2$ million blood donors, an aver-
age of 1.6 donations per donor. The four categories used in this report which show the reasons donations were made are: sold, given for replacement, given to a blood bank, and "other donation." Examples of "other donations" are donations made for altruistic reasons or to receive time off from work. The proportions of donations made to blood banks and classified as other donations were similar, 35.2 and 36.5 percent, respectively. They are the two major categories of donations. About 20 percent of all donations replaced blood used by a relative or friend, while donations that were sold made up the smallest category, 8.1 percent. Over onethird of donations that were sold ( 35.0 percent) were given by persons donating blood five or more times during the year, whereas only 5.8 percent of donations made for replacement, 4.4 percent of donations to blood banks, and 7.1 percent of other donations came from individuals giving blood with this frequency.

Preliminary information on blood donors and blood donations appeared in Monthly Vital Statistics Report, Vol. 23, No. 12, Supplement.

## INTRODUCTION

The use of blood to treat illnesses and injuries has increased dramatically since World War II. Its widespread use came only after three med-ical-technical problems were overcome: maintaining the viability and utility of blood and its components during storage, preventing the coagulation of blood during storage, and ensuring compatibility between transfused and patients' blood. ${ }^{1}$

The first recorded transfusion to a human, which ended in failure, occurred between a 15 -year-old boy and a lamb in 1667, some 50 years after William Harvey's discovery of the circulatory system. Limited experimentation continued during the next 150 years, but not until 1818 was the first human-to-human transfusion performed. Only after Karl Landersteiner's finding in 1901 that there were different types of human blood, the mixing of which resulted in the clumping together and destruction of red blood cells, did transfusions of this kind become an accepted but still uncommon procedure. Landersteiner's observation lead to the identification of the four main blood groups and some understanding of previous incompatability problems in transfusions. ${ }^{2}$

The successful transfusion of stored blood first took place in 1914 at New York's Mt. Sinai Hospital and led the way to large-scale use of transfusion therapy. By the end of World War II, many refinements in blood preservation, storage, and compatibility had been achieved. Blood research since that time has largely been directed toward developing new and improved procedures in the therapeutic use of blood to treat illness and disease. ${ }^{1}$ As new and improved methods of treatment develop, increasing demands for human blood emerge.

An outgrowth of the expanded use of blood and its components has been the rapid development of the blood-service complex in this country. In 1971 over 5,400 organizations participated in the collection and transfusion of blood and blood products. ${ }^{1}$ Although this growth has often been unsystematic and unregulated, improvements in the blood-service complex are now underway. In 1973, the Secretary of Health, Education, and Welfare issued a National Blood Policy program, which identified four specific goals in the development of an improved blood-service system:
"1. Supply. A supply of blood and blood products adequate to meet all of the treatment and diagnostic needs of the population of this country.
"2. Quality. Attainment of the highest standard of blood transfusion therapy through full application of currently available scientific
knowledge, as well as through advancement of the scientific base.
' 3 . Accessibility. Access to the national supply of blood and blood products by everyone in need, regardless of economic status.
"4. Efficiency. Efficient collection, processing, storage, and utilization of the national supply of blood and blood products." ${ }^{3}$
In conjunction with these four goals, one of the specific policy proposals was: "To encourage, foster, and support efforts designed to bring into being an all-voluntary blood donation system and to eliminate commercialism in the acquisition of whole blood and blood components for transfusion purposes." 3

Perhaps the most publicized danger associated with blood transfusions is the risk of posttransfusion hepatitis, many times shown to occur more frequently when blood was obtained from professional paid donors than from volunteers. Certainly this factor provided further impetus to move in the direction of establishing an all-volunteer blood program in this country.

In anticipation of a National Blood Policy program, an ad hoc committee of the National Research Council was formed to study the blood distribution system. Its assessment was impeded, however, by a number of information gaps. Concluding that "there are no data concerning the extent to which the various categories contribute to our blood resources, nor do any definitive studies focus on donor motivations," 4 the committee included among its specific recommendations the conduct of a Blood Donor Study.

To help bridge the information gap, in 1973 the National Center for Health Statistics, through the Health Interview Survey, collected data about the characteristics of the blood donor population, the magnitude of blood donations in the United States, and the reasons people donate blood. This was the first time data about blood donors were collected as part of this survey.

## SOURCE AND LIMITATIONS OF THE DATA

This report contains information from the Health Interview Survey which was obtained by
household interviews conducted throughout the Nation on a continuing basis. Each week a probability sample of households is interviewed by trained personnel of the U.S. Bureau of the Census to obtain information about the health and other characteristics of each member of the household in the civilian, noninstitutionalized population of the United States. During 1973 approximately 120,000 persons living in about 41,000 households were included in the sample.

A description of the design of the survey, the methods used in estimation, and general qualifications of the data obtained is presented in appendix I. Since 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. Therefore, particular attention should be paid to the section entitled "Reliability of Estimates." Sampling errors for most of the estimates are of relatively low magnitude. However, where an estimated number or the numerator or denominator of a rate or percentage is small, the sampling error may be high. Charts of the relative sampling errors and instructions for their use are showm in appendix I.

Appendix II contains definitions of certain terms used in this report, some of which have specialized meanings for the survey. For example, in this report the term "blood donor" is used to denote both persons who are paid to supply blood and those who are not.

The questionnaire used in the Health Interview Survey during 1973 appears in the publication "Current Estimates from the Health Interview Survey, United States, 1973" (Vital and Health Statistics, Series 10, Number 95). The portion of this questionnaire dealing with blood donors and the card used in conjunction with one of the questions appear in appendix III of this report.

During 1973 a question was asked about each household member 17 years of age or older to determine whether any of his blood had been given or sold to a blood bank, a hospital, the Red Cross, or anywhere else during the 12 month period immediately preceding the interview (question 33a). For persons giving or selling blood, questions were also asked to determine the number of times blood was donated during this period and the reason best describing why
each donation was made (questions 33b and 33c). Card B, containing a list of five reasons for donating blood, was used to obtain responses to the final question.

Although blood donor data were collected for all persons 17 years of age or older, data contained in this report are limited to persons 17-64 years of age. This age group closely parallels the age limit for blood donors, 17-65 years, required by most States. Persons 65 years of age or older who reported giving blood have been excluded since the numbers were insufficient to constitute a separate age category, and their inclusion in a population group 45 years and over would have been statistically inconsequential.

The restriction of the survey to the civilian, noninstitutionalized population most likely produces an underestimation of both the number of blood donors in the total population and the number of donations made. In particular, the number of blood donors and donations for males in the age group 17-24 years is underreported because of the exclusion of members of the Armed Forces. Likewise, the exclusion of the institutionalized population (e.g., persons confined to penal institutions) contributes to some underreporting. Furthermore, there is speculation that donations that are sold are somewhat underreported, as persons most likely to sell blood are among the population groups most difficult to locate and thus may be underrepresented in a household interview survey.

It is recognized that respondents in an interview situation report only those facts which they know about and are willing to discuss. For this survey, considerable effort both in questionnaire design and in interviewer training has been made to minimize the effects of respondent biases in reporting.

## CHARACTERISTICS OF BLOOD DONORS

For purposes of this report, a blood donor is someone 17-64 years of age who gave or sold blood to a blood bank, a hospital, the Red Cross, or anywhere else during the 12 -month period preceding the interview. Tables $1-8$ present data on demographic and health characteristics of blood donors.

Table A. Percent of population who were blood donors, by sex and color: United States, based on data collected during 1973

| Color | $\begin{aligned} & \text { Both } \\ & \text { sexes } \end{aligned}$ | Male | Female |
| :---: | :---: | :---: | :---: |
|  | Percent |  |  |
| Total | 5.3 | 8.0 | 2.9 |
| White | 5.6 | 8.3 | 3.1 |
| All other | 2.9 | 5.0 | 1.2 |

Data collected through the Health Interview Survey during 1973 reveal that a relatively small proportion ( 5.3 percent) of the civilian, noninstitutionalized population of the United States 17-64 years of age donated blood (table A). Data presented in the following sections of this report show, however, that when the blood donor population is examined by selected demographic and health-related characteristics, considerable variation from this figure occurred.

Of course, not all persons who attempt to give blood become blood donors. Most bloodcollection agencies screen prospective donors for potentially harmful conditions which could be transmitted to a recipient and for conditions or situations which could pose a health hazard to the donor himself. For example, the American National Red Cross, which is responsible for obtaining about 40 percent of all whole blood collected by the blood banks in this country, rejects about 12 percent of all prospective donors. ${ }^{5}$

## Sex, Age, and Color

There is a striking contrast between the percent of men and women 17-64 years of age who donated blood. Many more males than females gave, 8.0 percent compared to 2.9 percent. ${ }^{\text {a }}$ As

[^0]

Figure 1. Percent of population who were blood donors by age and sex.
figure 1 shows, this sex difference occurred regardless of age. In fact, in all age groups except 17-24 years, there were proportionately more than twice as many male donors as female donors.

The percent of women who donated blood remained fairly constant for most age groups. Only between the ages of 55-64 was the percent of female donors lower ( 1.4 percent) than the percent for other ages. However, for males there were differences in the percent of blood donors among each of the age groups, ranging from 11.5 percent for ages $25-34$ years to 3.4 percent for ages 55-64. Because of increased chronic conditions and other health problems among older persons, it is not surprising that proportionately fewer men and women 55 years of age and over gave blood than younger persons did.

The proportion of blood donors also varied by color. Proportionately about twice as many white persons ( 5.6 percent) as persons of other colors ( 2.9 percent) gave blood during the 12 -month period preceding the interview. Differences between color groups occurred regardless of sex, although white males and males of all other colors showed greater similarity in percentage of donors ( 8.3 percent and 5.0 percent, respectively) than did white females ( 3.1 percent) and females of all other colors (1.2 percent).

## Family Income and Education of Individual

Family income and educational level are both strong indicators of the probability of someone's donating blood. As income or education increases, so does the percent of blood donors in the population.

Although some of the differences among the family income categories shown in table 2 are within sampling variation, a pattern of increasing participation as income rises can be seen for both males and females and for all age groups except 17-24 years. In this age group proportionately more young persons gave blood when family income was less than $\$ 5,000$ ( 6.6 percent) than when it exceeded that amount (4.8 percent). Contributing to this phenomenon are college students (many of whom fall into the under $\$ 5,000$ group) who donated blood in greater numbers than some other persons of these ages did.

The relationship between family income and blood donor participation becomes more apparent when data are grouped into two broad income categories, less than $\$ 10,000$ and

Table B. Percent of population who were blood donors, by family income, sex, and age: United States, based on data collected during 1973

| Sex and age | Family income |  |
| :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Less than } \\ & \$ 10,000 \end{aligned}$ | $\$ 10,000$ or more |
| Both sexes | Percent |  |
| All ages 17-64 years | 4.0 | 6.5 |
| 17-24 years | 5.3 | 5.1 |
| 25-44 years | 4.7 | 8.1 |
| $45-64$ years | 2.2 | 5.1 |
| Male |  |  |
| All ages 17-64 years | 6.1 | 9.4 |
| 17-24 years | 7.1 | 6.7 |
| 25-44 years | 7.6 | 12.5 |
| 45-64 years | 3.3 | 7.0 |
| Female |  |  |
| All ages 17-64 years | 2.4 | 3.4 |
| 17-24 years | 3.8 | 3.5 |
| $25-44$ years | 2.2 | 3.7 |
| 45-64 years | 1.4 | 3.0 |

Table C. Percent of population who were blood donors, by education of individual and sex: United States, based on data collected during 1973

| Sex | Education of individual |  |  |
| :---: | :---: | :---: | :---: |
|  | Less than 12 years | 12 years | 13 years or more |
| Both sexes | Percent |  |  |
|  | 2.7 | 5.6 | 8.2 |
| Male | 4.2 | 9.0 | 11.0 |
| Female | 1.2 | 3.1 | 4.8 |

$\$ 10,000$ or more (table B). Clearly, a greater proportion of the population in the higher income brackets donated blood ( 6.5 percent) than did persons with smaller family incomes ( 4.0 percent). Differences between these two income categories occurred for males and females alike and for all age groups except 17-24 years. Proportionately more males 25-44 years of age with family incomes of $\$ 10,000$ or more were blood donors than were persons in any other age, sex, or income group in table $B$.

The rise in the percent of blood donors as education increases is a dramatic one. Only 2.7 percent of persons who had not graduated from high school gave blood during the year prior to interview, compared to 8.2 percent of persons completing one or more years of college (table C). An increase in the percent of persons giving blood occurred for each higher category of education among both males and females. The rate of increase, however, was greater for female donors, 1.2 to 4.8 percent, than for males, 4.2 to 11.0 percent. This difference held regardless of age (table 3).

## Geographic Distribution

In general, the percentage of persons giving blood was similar in the different geographic regions of the country. The South, however, produced proportionately fewer blood donors ( 4.8 percent) than either the Northeast Region ( 5.6 percent) or North Central Region ( 5.7 percent) (figure 2). (The difference between the South and the West may be due to sampling error.) This lower figure for the South can be partially attributed to minimal female par-


Figure 2. Percent of population who were blood donors by geographic region and sex.
ticipation in blood donor activities. Whereas approximately the same percent of southern males gave blood as did males from the other regions, the percent of female blood donors from the South (2.1 percent) was lower than for any other region. Males from the West produced fewer blood donors ( 6.9 percent) than did males from the Northeast Region ( 8.5 percent) or North Central Region (8.2 percent). Again, differences noted between the West and the South are small and may reflect sampling variation.

Regardless of geographic region, persons 17-44 years of age contributed approximately the same proportion of blood donors (table 4). For persons 45-64 years old, however, some differences were found. For instance, the South had proportionately fewer blood donors these ages (3.1 percent) than did the Northeast and North Central Regions of the country ( 4.2 percent and 4.3 percent, respectively). Thus, the differences noted at the beginning of this section largely reflect differences among persons in this age group.

Overall, residents of standard metropolitan statistical areas (SMSA's) produced proportionately more blood donors than did persons living outside metropolitan areas, 5.6 percent compared to 4.7 percent (table D). This difference was apparent for males but not for females. Whereas approximately the same percent of females living within and outside SMSA's were

Table D. Percent of population who were blood donors, by sex and place of residence: United States, based on data collected during 1973

| Place of residence | Both sexes | Male | Female |
| :---: | :---: | :---: | :---: |
| All residences | Percent |  |  |
|  | 5.3 | 8.0 | 2.9 |
| All SMSA | 5.6 | 8.4 | 3.0 |
| Central city | 5.3 | 8.0 | 2.8 |
| Outside central city | 5.8 | 8.8 | 3.1 |
| Outside SMSA | 4.7 | 6.8 | 2.7 |
| NonfarmFarm . . | 4.8 | 7.0 | 2.8 |
|  | 4.0 | 5.6 | 2.3 |

blood donors ( 3.0 and 2.7 percent, respectively), the proportion of male donors living in SMSA's was about 20 percent higher than the proportion in areas outside SMSA's ( 8.4 compared to 6.8 percent).

Within SMSA's, the percentage of blood donors residing in central cities was similar to that of surrounding suburban areas, regardless of sex. For persons living outside SMSA's, the observed differences between the proportion of blood donors who were farm or nonfarm residents were also within sampling variation, regardless of sex.

## Labor Force Status and Occupation

For purposes of this survey, the labor force population includes all persons aged 17 years and over who worked at or had a job or business, were looking for work, or were on layoff from work during the 2 -week period prior to the week of interview.

The labor force population generated proportionately more blood donors than did persons not in the labor force; about three times as many individuals in the labor force ( 6.7 percent) gave blood as those who were not ( 2.0 percent) (table E). When the percent of blood donors from the labor force population and the population not in the labor force are compared by sex, both males and females in the labor force produced proportionately more donors, regardless of age. This higher percent of blood

Table E. Percent of population who were blood donors, by labor force status, sex, and age: United States, based on data collected during 1973

| Sex and age | In labor force | Not in labor force |
| :---: | :---: | :---: |
| Both sexes | Percent |  |
| All ages 17-64 years | 6.7 | 2.0 |
| 17-24 years | 6.1 | 2.7 |
| 25-44 years | 8.4 | 2.2 |
| 45-64 years | 5.0 | 1.3 |
| Male |  |  |
| All ages 17-64 years | 8.5 | 3.6 |
| 17-24 years | 7.3 | 4.9 |
| 25-44 years | 10.9 | 5.7 |
| 45-64 years | 6.2 | 1.3 |
| Female |  |  |
| All ages 17-64 years | 4.0 | 1.6 |
| 17-24 years | 4.8 | 1.7 |
| 25-44 years | 4.1 | 1.9 |
| 45-64 years | 3.2 | 1.3 |

donors among persons in the labor force seems to reflect in part their greater participation in blood-banking programs, which are more readily available to persons in this group.

For this report, persons in the labor force have been classified according to three occupa-
tional categories-white-collar workers, bluecollar workers, and farm or service workers. Figures for the percent of blood donors who were white-collar and blue-collar workers ( 7.4 and 7.2 percent, respectively) were similar (table F). When this comparison is made by sex, however, differences between the percent of blood donors for white-collar and blue-collar workers are found for both males ( 10.0 compared to 8.0 percent) and females ( 4.8 compared to 3.6 percent).

Fewer farm and service workers gave blood ( 4.7 percent) than white- and blue-collar workers did. Differences between blue-collar and farm and service workers are within sampling variation, however, when figures specifically for males and females are compared.

## Veteran Status

When veterans and persons who had never served in the U.S. Armed Forces were compared, proportionately more veterans ( 9.1 percent) than nonveterans ( 6.9 percent) gave blood (figure 3). Differences between these two groups occurred for each age group except 17-24 years. Veterans were further classified according to whether any of their service was during wartime. As shown in table 7, veterans serving only in peacetime produced proportionately more blood

Table F. Total labor force population and number and percent of the labor force population who were blood donors, by occupation and sex: United States, based on data collected during 1973

| Occupation and sex | In labor force |  |  |
| :---: | :---: | :---: | :---: |
|  | Total population in thousands | Number of blood donors in thousands | Percent of population who were blood donors |
| White-collar workers |  |  |  |
| Both sexes | 37,256 | 2,766 | 7.4 |
| Male | 18,765 | 1,883 | 10.0 |
| Fernale | 18,492 | 883 | 4.8 |
| Blue-coilar workers |  |  |  |
| Both sexes | 29,186 | 2,101 | 7.2 |
| Male . | 23,732 | 1,903 | 8.0 |
| Female | 5,454 | 198 | 3.6 |
| Farm and service workers |  |  |  |
| Both sexes | 12,983 | 605 | 4.7 |
| Male | 5,785 | 400 | 6.9 |
| Female | 7,198 | 205 | 2.8 |



Figure 3. Percent of males who were blood donors by veteran status and age.
donors ( 12.4 percent) than men having a portion of their service during wartime did (8.6 percent).

## Selected Health Indexes

To provide some insight as to whether persons in better health contribute to the Nation's blood supply in greater numbers, proportionately, than persons with some health
problem, blood donor data are shown for the following three measures of health-health status, doctor visits, and hospital episodes.

Health status.-This measure was determined by asking the respondent:
"Compared to other persons --'s age, would you say that his health is excellent, good, fair, or poor?"
Since no attempt was made to define these categories for respondents in the interview, their answers reflect only a subjective evaluation of the person's health, subject to personal biases as to the meaning of these terms.

Nevertheless, a definite trend appears when the percentages of blood donors in the various health status categories are compared-from a high of 7.0 percent of persons in "excellent" health, to 4.5 percent for those in "good" health, to only 1.9 percent of persons whose health was "fair or poor" (table G). When similar comparisons are made for the three age groups included in this table, this pattern of decreasing participation as health status declines can be seen for each age group; however, for those 17-24 years, differences between donors with "good" and "fair or poor" health are within sampling variation. A marked decline in the

Table G. Percent of population who were blood donors, by age and selected health indexes: United States, based on data collected during 1973

| Selected health index | All ages $17-64$ years | $\begin{aligned} & 17-24 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 25-44 \\ \text { years } \end{gathered}$ | 45-64 years |
| :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |
| All indexes ${ }^{1}$ | 5.3 | 5.1 | 6.7 | 3.8 |
| Health status |  |  |  |  |
| Excellent | 7.0 | 5.9 | 8.4 | 5.9 |
| Good | 4.5 | 4.4 | 5.6 | 3.4 |
| Fair or poor | 1.9 | 3.3 | 2.4 | 1.3 |
| Doctor visits in past year |  |  |  |  |
| No visits | 5.4 | 4.7 | 7.2 | 3.8 |
| 1.4 visits | 6.1 | 5.6 | 7.5 | 4.7 |
| 5 or more visits | 3.7 | 4.3 | 4.8 | 2.2 |
| Hospital episodes in past year |  |  |  |  |
| No hospitalizations | 5.6 | 5.2 | 7.1 | 4.0 |
| 1 or more hospitalizations | 3.6 | 4.2 | 4.2 | 2.4 |

[^1]percent of blood donors as health status declined can also be seen when males and females are considered separately (table 8).

Doctor visits.-Data on the number of visits made to a doctor during the 12 -month period preceding the interview are also shown in table G. Since many doctor visits are for preventive health care and for conditions of an acute nature, it is not surprising that the proportion of the population donating blood who had one to four visits is similar to the proportion donating with no doctor visits ( 6.1 and 5.4 percent, respectively).

A decrease in blood donor participation as doctor visits increase is evident only when the last two categories (one to four visits and five or more visits) are compared. Regardless of age, there were proportionately fewer blood donors among persons with five or more doctor visits than among persons with one to four visits.

Hospital episodes.-A slightly greater percentage of persons without a hospital episode gave blood ( 5.6 percent) than did those who had a hospital episode in the past year ( 3.6 percent). This relationship held for both sexes ( 8.1 compared to 6.3 percent for males and 3.0 compared to 2.0 percent for females).

Among the two older age groups, proportionately more persons without a hospital episode than persons with a hospital episode gave blood (for persons 25-44 years, 7.1 and 4.2 percent, respectively, and for persons 45-64 years, 4.0 and 2.4 percent, respectively). Whether or not a person had a hospital episode, however, did not seem to greatly affect blood
donor participation among persons 17-24 years of age. Differences in the percent of blood donors these ages with a hospital episode (4.2 percent) and without a hospital episode ( 5.2 percent) are within sampling variation.

## NUMBER OF TIMES DONORS GAVE BLOOD

When persons donated blood during the year, respondents were asked:
"During the past 12 months, how many times has -- given or sold his blood?"

Responses to this question were for the most part grouped into three distinct categories-one time, two times, and three or more times; the average number of donations per donor per year was also computed. While there was considerable variation in the percent of persons with different demographic and health characteristics who donated blood (as described earlier), few differences were observed when similar comparisons were made of the number of times donors gave blood. Tables $9-25$ show data on the number of times donors gave blood and the average number of donations per donor.

In this country, a blood donor may give blood as many as five times a year. Data from this survey show, however, that most donors gave far less frequently. Approximately twothirds of all blood donors ( 67.1 percent) gave blood only one time, and only slightly more than 1 in 10 blood donors ( 13.4 percent) gave three times or more during the 12 -month period preceding the interview (table H ).

Table H. Percent distribution of blood donors by number of times they gave blood during the year, according to age: United States, based on data collected during 1973

| Age |
| :---: |

Table J. Percent of blood donors giving blood only one time and average number of donations per donor per year, by sex and selected characteristics: United States, based on data collected during 1973


[^2]The proportion of donors giving blood only once was higher among persons 17-24 years of age ( 72.3 percent) than in the two older age groups ( 65.2 and 66.3 percent). And proportionately fewer young donors gave blood three times or more than older ones did.

Male donors gave blood with somewhat greater frequency than female donors, 65.4 percent compared to 71.6 percent making only one donation (table J). About the same percentage
of white donors ( 67.1 percent) and donors of all other colors ( 67.2 percent) gave blood only once during the year, and the percentages for the two color groups were similar regardless of sex.

Although statistically significant differences were not found among all income categories, in general, as family income increased, the proportion of the blood donor population that gave only once decreased. When persons with family incomes of less than $\$ 5,000$ are compared to
those with incomes of $\$ 15,000$ or more, the percent of blood donors giving only one time falls from 74.2 to 65.1 percent. A similar pattern seems to occur as education increases; however, the differences among the three education categories in table J may be due to sampling variation.

Proportionately, there were more donors from the North Central Region ( 70.1 percent) who gave blood only once than donors from the West Region ( 62.6 percent); all other comparisons among the regions showed about the same percent of donors giving blood only one time during the year.

No appreciable differences in frequency of donations were noted between persons living within or outside SMSA's or between persons residing within or outside central cities. Whether or not a donor was in the labor force and the type of occupation a donor had also did not have a noticeable impact, as shown by the figures in table J.

The average number of donations made by blood donors was 1.6. This average remained about the same for all of the specific population groups shown in table J.

Frequency of blood donations varied with the reasons reported for making a donation. For


Figure 4. Percent of blood donars giving only one time for each donation type by sex.
example, donors were much less likely to sell their blood only one time than to give blood only once for any other reason. About one-half of the donors who sold blood ( 49.2 percent) sold it only once during the year (figure 4). In contrast, 85.6 percent of donors whose blood was given for replacement purposes, 73.2 percent of persons contributing to blood banks, and 67.2 percent of persons giving for other reasons gave just once for these particular reasons.

About the same percent of male and female donors sold blood only once-49.8 and 47.9 percent, respectively-or gave only once during the year to replace blood-84.9 and 87.9 percent, respectively. However, sex differences appeared for the other two reason categories. Proportionately more women made blood bank contributions only once-79.7 percent versus 70.9 for men-or donated blood only one time for some other reason-74.2 percent compared to 63.9 percent for male donors.

## VOLUME OF BLOOD DONATIONS BY REASON FOR DONATION

A question was asked persons reporting one or more blood donations during the year to determine the primary reason each donation was made. Reasons for making donations were collected by use of a flashcard shown to the respondent which included the following categories: sold blood, replaced blood used by a relative or friend, unpaid donation to a blood bank to assure free blood for the family in the future, other unpaid blood donation which was not for replacement and did not assure free blood for the family in the future, and some other reason. In tables for this report responses classified to the last two reason categories have been combined and identified simply as "other donation." Tables 26-34 present data on blood donations by reason for donation.

In some cases, donations to blood banks may have been misclassified. Donors who initially gave to blood banks and then continued to donate blood when not actually required in order to assure free blood for themselves or their families may or may not have considered these multiple donations as blood bank contributions. Whereas one respondent may have reported all

Table K. Total blood donations and percent distribution of blood donations by reason for donation, according to sex: United States, based on data collected during 1973

| Sex |
| :--- |

${ }^{1}$ Includes donations for unknown reasons.
such donations as blood bank donations, another respondent may have considered them donations of another type.

During this period the 6.5 million persons donating blood made a total of 10.2 million donations (table K). The proportions of donations made to blood banks and classified as "other donation" were similar, 35.2 and 36.5 percent, respectively, and comprise the two most frequent reasons for making a donation. Donations that were sold made up the smallest category (8.1 percent). While this last category makes up a relatively small proportion of the donations made, it is the one in which some of the most striking differences between population groups occur.

So far this report has presented data on the percent of persons within selected population groups who gave blood. The discussion which follows uses the same demographic and health variables to examine the estimated number and percent of donations that were made.

## Sex, Age, and Color

About three out of every four donations were given by males. Nevertheless, there was considerable similarity between the sexes regarding the reasons for making a donation. About the same proportion of donations made by male and female donors were sold ( 8.3 and 7.8 percent), used for replacement (20.3 and 18.2 percent), and given to blood banks ( 36.0 and 33.0 percent, respectively). Only for "other donations" did donations from female donors pro-
portionately exceed male donations ( 40.8 compared to 35.0 percent).

Among certain age groups some striking differences occurred, as reflected in figure 5. Proportionately more donations were sold by young donors ( 16.7 percent) than by donors in the two older age groups ( 6.8 percent and 3.6 percent). Conversely, fewer donations to blood banks were made by donors $17-24$ years old ( 26.7 percent) than by donors in the two older age groups ( 37.8 and 37.0 percent). Young donors also gave blood for replacement less often ( 17.2 percent) than did persons 25-44 years of age ( 21.0 percent):

The percentages of donations for three of the four reason categories included in table $L$ were about the same for white donors and donors of


Figure 5. Percent distribution of blood donations by reason for donation and age.

Table L. Total blood donations and percent distribution of blood donations by reason for donation, according to age and color: United States, based on data collected during 1973

${ }^{1}$ Includes donations for unknown reasons.
other colors-for replacement, 20.0 and 16.5 percent; to blood banks, 35.3 and 33.7 percent; and "other donations," 36.8 and 32.7 percent, respectively. However, proportionately about twice as many donations were sold by donors in the other color group ( 16.3 percent) as by white donors ( 7.6 percent). When the percent of donations sold by persons 17-24 years are compared for the two color groups, the disparity becomes even more pronounced. Over one-third of all donations by young donors of other colors ( 38.2 percent) were sold, contrasted to only 14.9 percent for white donors.

## Family Income and Education of Individual

The data show definite relationships between family income and the reasons for donations, in particular, those sold and those given to blood banks. As might be expected, donations from persons with small family incomes were sold with greater frequency than were donations from persons with larger incomes. Donations to blood banks reflect just the opposite pattern, as donors with higher incomes
produced more donations for blood banks, proportionately, than those with smaller incomes. The percent of donations given to replace blood used by a relative or friend remained fairly constant regardless of income. Also unaffected by family income were blood contributions classified to the "other donation" category.

More specifically, 22.2 percent of all donations from persons with family incomes under $\$ 5,000$ were sold, compared to 12.4 percent for incomes between $\$ 5,000$ and $\$ 9,999$, and 4.5 percent for incomes of $\$ 10,000$ or more (table M). A somewhat different pattern is observed with donations from persons 17-24 years of age. Here, about the same percent of donations from donors with incomes under $\$ 5,000$ and $\$ 5,000-\$ 9,999$ were sold ( 25.8 and 22.1 percent, respectively). The percent of donations sold by persons these ages with incomes of $\$ 10,000$ or more, however, was substantially lower (7.3 percent).

Proportionately more than twice as many donations were made to blood banks by persons whose family income was $\$ 10,000$ or more (39.1 percent) than when it was less than $\$ 5,000$ ( 18.0 percent). The higher percent of donations

Table M. Percent distribution of blood donations by reason for donation, according to age and family income: United States, based on data collected during 1973

| Age and family income |
| :---: |

${ }^{1}$ Includes donations for unknown reasons.

Table N. Percent distribution of blood donations by reason for donation, according to age and education of individual: United States, based on data collected during 1973

| Age and education of individual |
| :---: |

[^3]to blood banks among donors with larger incomes probably reflects the greater availability of blood banking programs to persons in the labor force.

Data in table N show a relationship between a donor's educational level and some of the reasons donations are made. Donations that were sold exhibited the greatest variation. Twelve and one-half percent of all donations from persons without a high school diploma were sold, contrasted by only 7.0 percent from persons having completed one or more years of college. For certain age groups, the differences between these two education groups were even more pronounced: 32.9 compared to 15.0 percent of donations from persons 17-24 years of age were sold, and 13.5 compared to 4.7 percent of donations from the age group 25-44 years were sold.

Contributions classified to the "other donation" category showed a slight increase as education increased-from 32.5 percent of all donations given by persons with less than 12 completed years of schooling to 39.9 percent of all donations given by persons with one or more
completed years of college. However, there were no marked differences among education groups in the percentages of donations given to replace blood or given to blood banks by donors 17-64 years of age.

## Geographic Distribution

Differences in donation patterns were apparent among some regions of the country. For instance, proportionately more donations from the South were sold, 10.3 percent, than were sold in the Northeast and the West-6.1 and 6.8 percent, respectively (table O). Overall, however, the West showed somewhat greater variation than other regions. Blood bank contributions were made far less frequently in the West (27.1 percent), a trend apparent regardless of sex. And proportionately more donations from the West were given for "other" reasons ( 43.6 percent).

The proportion of replacement donations was similar for all regions. By sex, however, the largest proportion of donations to replace blood was by females from the West Region (27.1 percent).

Table O. Percent distribution of blood donations by reason for donation, according to geographic region and sex: United States, based on data collected during 1973

| Sex and reason for donation | All regions | Northeast | North Central | South | West |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Both sexes | Percent distribution |  |  |  |  |
| All reasons ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood | 8.1 | 6.1 | 8.6 | 10.3 | 6.8 |
| Replaced blood | 19.8 | 17.2 | 19.5 | 20.9 | 21.7 |
| Gave to blood bank | 35.2 | 40.0 | 35.5 | 36.2 | 27.1 |
| Other donation.. | 36.5 | 36.5 | 36.4 | 32.3 | 43.6 |
| Male |  |  |  |  |  |
| All reasons ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood | 8.3 | 5.6 | 8.7 | 10.4 | 7.6 |
| Replaced blood | 20.3 | 18.2 | 21.4 | 21.7 | 19.2 |
| Gave to blood bank | 36.0 | 40.7 | 35.8 | 36.3 | 29.1 |
| Other donation . . | 35.0 | 35.5 | 34.0 | 31.1 | 43.1 |
| Female |  |  |  |  |  |
| All reasons ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood | 7.8 | * | 8.2 | 9.7 | * |
| Replaced blood | 18.2 | 14.3 | 14.8 | 17.8 | 27.1 |
| Gave to blood bank | 33.0 | 37.9 | 34.7 | 35.5 | 22.9 |
| Other donation . . | 40.8 | 39.5 | 42.2 | 36.6 | 44.6 |

[^4]Table P. Percent distribution of blood donations by reason for donation, according to place of residence: United States, based on data collected during 1973

| Place of residence | Reason for donation |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All reasons ${ }^{1}$ | Sold blood | Replaced blood | Gave to blood bank | Other donation |
|  | Percent distribution |  |  |  |  |
| All SMSA | 100.0 | 9.5 | 19.4 | 37.2 | 33.7 |
| Central city | 100.0 | 13.7 | 19.0 | 31.8 | 35.4 |
| Outside central city | 100.0 | 6.3 | 19.7 | 41.2 | 32.4 |
| Outside SMSA | 100.0 | 4.5 | 20.9 | 29.8 | 44.4 |

${ }^{1}$ Includes donations for unknown reasons.

When comparisons were made between the proportion of donations sold in SMSA's and areas outside SMSA's, large differences were found. Proportionately about twice as many donations from SMSA's ( 9.5 percent) than from non-SMSA areas ( 4.5 percent) were sold (table P). Within SMSA's, differences also occurred when data for donations sold were compared for the central cities ( 13.7 percent) and areas outside the central city ( 6.3 percent).

The proportion of donations given to blood banks also varied by area of residence. As with donations that were sold, proportionately more donations went to blood banks from SMSA's (37.2 percent) than from non-SMSA areas (29.8 percent). However, within SMSA's the proportion of blood bank donations from persons living
in areas surrounding the central city exceeded blood bank contributions from persons residing within the central city ( 41.2 compared to 31.8 percent).

Whereas about the same percent of "other donations" came from persons living either within or outside the central city in an SMSA, proportionately more donations of this type were given by donors residing outside of SMSA's (44.4 percent) than from those within SMSA's (33.7 percent).

## Labor Force Status and Occupation

The proportion of donations given to blood banks was considerably higher for persons in the labor force ( 36.8 percent) than for those who were not (23.0 percent) (table Q). This pattern

Table Q. Percent distribution of blood donations by reason for donation, according to labor force status and occupation: United States, based on data collected during 1973

| Labor force status and occupation | Reason for donation |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All reasons ${ }^{1}$ | Sold blood | Replaced blood | Gave to blood bank | Other donation |
|  | Percent distribution |  |  |  |  |
| Not in labor force | 100.0 | 15.1 | 23.6 | 23.0 | 37.6 |
| In labor force | 100.0 | 7.3 | $19.3$ | 36.8 | 36.4 |
| White-collar workers | 100.0 | 4.8 | 18.0 | 37.9 | 39.2 |
| Blue-collar workers. | 100.0 | 9.9 | 20.2 | 37.0 | 32.6 |
| Farm and service workers | 100.0 | 9.1 | 21.4 | 31.4 | 36.9 |

[^5]was evident for males and females alike (table 31). Certainly, the greater availability of blood banking programs to individuals in the labor force accounts for much of this difference. Selling blood, on the other hand, was more common among persons not in the labor force. Proportionately more than twice as many donations were sold by these persons ( 15.1 percent) as by persons in the labor force ( 7.3 percent).

Among labor force individuals, the percent of donations sold differs by occupational category. About twice as many donations were sold by blue-collar ( 9.9 percent) and farm and service workers ( 9.1 percent) as by white-collar workers ( 4.8 percent). No significant differences in the proportion of donations given to blood banks were found among these three occupational categories.

As with many of the other variables included in this report, labor force status or type of occupation did not result in any appreciable variation in the proportion of donations given to replace blood.

## Number of Yearly Donations

Substantial variations associated with patterns of blood giving are revealed when reasons for donations-sold blood, replaced blood, given to blood bank, and other donations-are displayed by the actual number of times persons gave blood during the year. Specifically, over one-half of all donations made for replacement purposes ( 56.9 percent) came from donors who gave blood only once during the year (table R). For each of the other categories, less than one-
half came from persons making only one donation a year: about 45 percent of blood bank contributions, about 38 percent of other donations, and about 17 percent of donations that were sold.

Clearly, proportionately more blood donations that were sold came from persons making multiple donations during the year. Over onethird of all sold donations ( 35.0 percent) came from individuals making five or more donations in a year. In contrast, less than 6 percent of all the remaining donation reasons came from persons donating this frequently.

Table S displays these data somewhat differently. As shown, the percent of donations sold increased steadily as the frequency with which donations were made increased (although some differences are within sampling variation) from 3.3 percent among persons with only one donation to 34.5 percent of all donations made by persons donating blood five or more times during the year. Conversely, the percentage given for replacement decreased as the frequency of donations increased-from 26.5 percent by persons giving only once, to 17.8 percent from donors with two donations, to 12.6 percent from persons making three or more donations in the year. The percent of donations made to blood banks was similar among persons making between one and four separate donations (ranging from 34.5 to 38.7 percent) but declined substantially for persons giving blood five times or more ( 18.7 percent). There was no clear-cut pattern for "other donation" types when similar comparisons were made.

Table R. Total blood donations and cumulative percent distribution of blood donations by number of donations made during the year, according to reason for donation: United States, based on data collected during 1973

| Reason for donation | Total donations in thousands | Number of donations made in year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 5 or more | 4 or more | 3 or more | 2 or more | 1 or more |
|  |  | Cumulative percent distribution |  |  |  |  |
| All reasons ${ }^{1}$ | 10,215 | 8.3 | 19.6 | 32.9 | 57.5 | 100.0 |
| Sold blood | 832 | 35.0 | 51.6 | 65.1 | 82.9 | 100.0 |
| Replaced blood | 2,019 | 5.8 | 11.3 | 21.0 | 43.1 | 100.0 |
| Gave to blood bank | 3,599 | 4.4 | 15.8 | 30.4 | 54.6 | 100.0 |
| Other donation | 3,730 | 7.1 | 20.3 | 34.3 | 62.4 | 100.0 |

[^6]Table S. Total blood donations and percent distribution of blood donations by reason for donation, according to number of donations made during the year: United States, based on data collected during 1973

| Number of donations made during the year | Total donations in thousands | Reason for donation |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { All } \\ \text { reasons }{ }^{1} \end{gathered}$ | Sold blood | Replaced blood | Gave to blood bank | Other donation |
|  |  | Percent distribution |  |  |  |  |
| All donations | 10,215 | 100.0 | 8.1 | 19.8 | 35.2 | 36.5 |
| - 1 donation | 4,338 | 100.0 | 3.3 | 26.5 | 37.7 | 32.4 |
| 2 donations | 2,517 | 100.0 | 5.9 | 17.8 | 34.5 | 41.6 |
| 3 donations | 1,356 | 100.0 | 8.3 | 14.5 | 38.7 | 38.5 |
| 4 donations | 1,160 | 100.0 | 11.9 | 9.6 | 35.5 | 42.4 |
| 5 or more donations | 844 | 100.0 | 34.5 | 13.9 | 18.7 | 31.2 |

[^7]
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[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown blood donor status.
NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 2. Total population, number of blood donors, and percent of population who were blood donors, by sex, family income, and age: United States, based on data collected during 1973
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown blaod donor status.
${ }^{2}$ Inciudes unknown family income.
NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

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[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Education of individual and age | Total population in thousands ${ }^{1}$ |  |  | Number of blood donors in thousands |  |  | Blood donors as a percent of total population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female |
| A11 education groups ${ }^{2}$ |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years------ | 121,550 | 58,256 | 63,294 | 6,461 | 4,635 | 1,827 | 5.3 | 8.0 | 2.9 |
|  | 29,063 | 14,000 | 15,062 | 1,486 | 950 | 536 | 5.1 | 6.8 |  |
| 25-44 years | 49,953 | 24,091 | 25,862 | 3,364 | 2,571 | 793 | 6.7 | 10.7 | 3.1 |
| 45-64 years | 42,534 | 20,164 | 22,370 | 1,612 | 1,113 | 498 | 3.8 | 5.5 | 2.2 |
| Less than 12 years |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years------ | 40,123 | 19,454 | 20,669 | 1,077 | 825 | 252 | 2.7 | 4.2 | 1.2 |
| 17-24 years------------------------- | 8,879 | 4,485 | 4,394 | 154 | 120 | * | 1.7 | 2.7 | * |
| 25-44 years | 12,616 | 5,877 | 6,739 | 489 | 387 | 102 | 3.9 | 6.6 | 1.5 |
| 45-64 years | 18,627 | 9,092 | 9,536 | 434 | 318 | 116 | 2.3 | 3.5 | 1.2 |
| 12 years |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years------ | 47,143 | 20,067 | 27,077 | 2,637 | 1,797 | 840 | 5.6 | 9.0 | 3.1 |
|  | 11,613 | 5,152 | 6,461 | 605 | 409 | 196 | 5.2 | 7.9 | 3.0 |
|  | 20,869 | 8,878 | 11,991 | 1,389 | 993 | 396 | 6.7 | 11.2 | 3.3 |
| 45-64 years------------------------ | 14,662 | 6,037 | 8,625 | - 644 | 395 | 249 | 4.4 | 6.5 | 2.9 |
| 13 years or more |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years------ | 33,143 | 18,116 | 15,028 | 2,721 | 1,997 | 724 | 8.2 | 11.0 | 4.3 |
| 17-24 years- | 8,240 | 4,196 | 4,044 | 718 | 418 | 300 | 8.7 | 10.0 |  |
| 25-44 years | 16,144 | 9,162 | 6,983 | 1,479 | 1,187 | 292 | 9.2 | 13.0 | 4.2 |
|  | 8,759 | 4,758 | 4,001 | 524 | 392 | 132 | 6.0 | 8.2 | 3.3 |

[^8]Table 4. Total population, number of blood donors, and percent of population who were blood donors, by sex, geographic region, and age: United States, based on data collected during 1973
[Data are based on hcousehold intervicws of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Geographic region and age | Total population in thousands ${ }^{1}$ |  |  | Number of blood donors in thousands |  |  | Blood donors as a.percent of total population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { 3oth } \\ & \text { sexes } \end{aligned}$ | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female |
| All regions |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years------ | 121,550 | 58,256 | 63,294 | 6,461 | 4,635 | 1,827 | 5.3 | 8.0 | 2.9 |
| 17-24 years----------------------- | 29,063 | 14,000 | 15,062 | 1,486 | 950 | 536 | 5.1 | 6.8 | 3.6 |
|  | 49,953 | 24,091 | 25,862 | 3,364 | 2,571 | 793 | 6.7 | 10.7 | 3.1 |
| 45-64 years------------------------- | 42,534 | 20,164 | 22,370 | 1,612 | 1,113 | 498 | 3.8 | 5.5 | 2.2 |
| Northeast |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years------ | 29,050 | 13,777 | 15,272 | 1,619 | 1,177 | 442 | 5.6 | 8.5 | 2.9 |
| 17-24 years------------------------- | 6,565 | 3,078 | 3,487 | 355 | 218 | 136 | 5.4 | 7.1 | 3.9 |
| 25-44 years------------------------- | 11,746 | 5,672 | 6,074 | 818 | 651 | 167 | 7.0 | 11.5 | 2.7 |
| 45-64 years------------------------- | 10,739 | 5,028 | 5,711 | 446 | 307 | 140 | 4.2 | 6.1 | 2.5 |
| North Central |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years------ | 32,951 | 15,987 | 16,964 | 1,884 | 1,311 | 573 | 5.7 | 8.2 | 3.4 |
|  | 8,079 | 3,967 | 4,112 | 445 | 280 | 165 | 5.5 | 7.1 | 4.0 |
|  | 13,272 | 6,504 | 6,768 | 942 | 712 | 230 | 7.1 | 10.9 | 3.4 |
| 45-64 years | 11,600 | 5,516 | 6,083 | 496 | 319 | 177 | 4.3 | 5.8 | 2.9 |
| South |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years----.-- | 38,213 | 18,096 | 20,117 | 1,850 | 1,427 | 423 | 4.8 | 7.9 | 2.1 |
| 17-24 years | 9,348 | 4,428 | 4,920 | 455 | 319 | 136 | 4.9 | 7.2 | 2.8 |
|  | 15,785 | 7,508 | 8,277 | 992 | 810 | 182 | 6.3 | 10.8 | 2.2 |
|  | 13,080 | 6,160 | 6,920 | 403 | 299 | 104 | 3.1 | 4.9 | 1.5 |
| West |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years------ | 21,336 | 10,394 | 10,941 | 1,108 | 719 | 389 | 5.2 | 6.9 | 3.6 |
| 17-24 years----------------------- | 5,070 | 2,528 | 2,543 | 231 | 133 | 98 | 4.6 | 5.3 | 3.9 |
|  | 9,150 | 4,407 | 4,744 | 611 | 397 | 213 | 6.7 | 9.0 | 4.5 |
|  | 7,115 | 3,460 | 3,655 | 266 | 189 | 77 | 3.7 | 5.5 | 2.1 |

${ }^{1}$ Includes unknown blood donor status.
NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62 .

Table 5. Total population, number of blood donors, and percent of population who were blood donors, by sex, place of residence, and age: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estumates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown blood donor status.
NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64 , code $\mathrm{P} 4 \mathrm{AN}-\mathrm{M}$. A guide to the use of the relative standard error charts is on page 62.

Table 6. Total population, number of blood donors, and percent of population who were blood donors, by sex, labor force status, occupation, and age: United States, based on data collected during 1973
[Datn are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown blood donor status.
${ }^{2}$ Includes unknown occupation.
NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64, code $P 4 A N-M$. A guide to the use of the relative standard error charts is on page 62.

Table 7. Total male population, number of male blood donors, and percent of male population who were blood donors, by veteran status and age: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown blood donor status.
NOTE: The relative standard errors of estimates are found on the chart on page 63, code $A 4 A N$, and the relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 8. Total population, number of blood donors, and percent of population who were blood donors, by sex, selected health indexes, and age: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I . Definitions of terms are given in appendix II]

| Selected health index and age | Total population in thousands ${ }^{1}$ |  |  | Number of blood donors in thousands |  |  | Blood donors as a percent of total population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female |
|  |  |  |  |  |  |  |  |  |  |
|  | 29,063 | 14,000 | 15,062 | 1,486 | 950 | 536 | 5.1 | 6.8 | 3.6 |
|  | 49,953 |  |  |  | 2,571 | 793 | 6.7 | 10.7 | 3.1 |
| 25-44 years-------------------------------- $45-64$ years---- | 42,934 | 20,164 | 22,370 | 1,612 | 1,113 | 498 | 3.8 | 5.5 | 2.2 |
| Health status |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Al1 ages 17-64 years------ | 15,249 | 29,417 | 7,382 | ,894 | 2,597 | 297 | 5.9 | 7.6 | 4.0 |
|  | 25,971 | 13,867 | 12, 104 | 2,178 | I,732 | 446 | 8.4 | 12.5 | 3.7 |
| 45-64 years- | 14,956 | 7,683 | 7,273 | 879 | 632 | 247 | 5.9 | 8.2 | 3.4 |
| Good: All ages $17-64$ years------ | 48,490 | 21,571 | 26,919 | 2,176 | 1,446 | 731 | 4.5 | 6.7 | 2.7 |
| -17-24 years-11-64 years--------- | 11,640 | 5,228 | 6,412 | +510 | 297 | 213 | 4.4 5.6 | 5.7 | 3.3 2.9 |
| 25-44. years- | 18,986 | 8,245 | 10,741 | 1,063 603 | 753 396 | 207 | 5.6 3.4 | 4.9 | 2.1 |
| 45-64 years----------------------- | 17,864 | 8,098 | 9,766 | 603 | 396 | 207 | 3.4 | 4.9 |  |
| Fair or poor: <br> A11 ages 17-64 yearṣ------ <br> 17-24 years <br>  <br> 45-64 years $\qquad$ | 16,200 | 6,940 | 9,260 | 300 | 199 | 101 | 1.9 | 2.9 | 1.1 |
|  | 16,200 1 | 6,798 | 1,176 | 66 | 40 79 | * | 3.3 2.4 | 5.0 4.2 | $\stackrel{*}{*}$ |
|  | 4,761 | 1, 8689 | 2,892 | 112 | 79 80 |  | 2.4 1.3 | 4.2 1.9 | 0.8 |
|  | 9,466 | 4,274 | 5,192 | 122 | 80 | 42 | 1.3 |  |  |
| Doctor visits in past year |  |  |  |  |  |  |  |  |  |
| No visits: $17-64$ years------ |  |  |  | 1,596 | 1,291 | 305 | 5.4 | 7.1 | 2.6 |
| Al1 ages 17-64 years------ | 29,775 6,365 | 18,102 4,056 | 11,674 2,309 | 1,302 | 1,229 | 74 | 4.7 | 5.6 | 3.2 |
| 17-24 years--- | 11,977 | 7,756 | 4,221 | 860 | 738 | 122 | 7.2 3 | 9.5 5.2 | 2.9 |
| 25-44 years- | 11,433 | 6,289 | 5,144 | 434 | 325 | 109 | 3.8 |  |  |
| 1-4 visits: |  |  | 32,099 | 3,753 | 2,691 | 1,062 | 6.1 | 9.1 | 3.3 |
| 17-24 years----------- | 15,777 | 2,7,757 | 8,020 | -887 | 2, 573 | 315 | 5.6 | 7.4 | 3.9 |
| 17-24 years--- | 26,059 | 12,559 | 13,500 | 1,942 | 1,492 | 450 | 7.5 | 11.9 | 3.3 |
| 25-44 years-- | 19,'805 | 9,226 | 10,580 | - 924 | 626 | 298 | 4.7 | 6.8 | 2.8 |
| 5 or more visits:All ages 1717-24 years---$25-44$ years---4564 |  |  |  |  | 609 | 444 | 3.7 | 6.3 | 2.4 |
|  | 28,442 | 1,900 | 4,582 | 1, 276 | 132 | 144 | 4.3 | 6.9 | 3.1 |
|  | 11,260 | 3,382 | 7,879 | 537 | 321 | 216 | 4.8 | 9.5 | 2.7 |
|  | 10,699 | 4,359 | 6,340 | 239 | 156 | 83 | 2.2 | 3.6 | 1.3 |
| Hospital episodes in past year |  |  |  |  |  |  |  |  |  |
| No hospitalizations: <br> All ages 17-64 years- |  |  |  |  |  |  | 5.6 | 8.1 | 3.0 |
|  | 106,456 25,478 | 52,926 | 12,482 | 1,336. | 4,870 | 1,665 | 5.2 | 6.7 | 3.7 |
|  | 43,678 | 22,208 | 21,470 | 3,101 | 2,398 | 703 | 7.1 | 10.8 | 3.3 |
|  | 37,300 | 17,721 | 19,578 | 1,488 | 1,030 | 459 | 4.0 | 5.8 | 2.3 |
| 1 or more hospitalizations: |  |  |  |  | 336 | 200 | 3.6 | 6.3 | 2.0 |
| 1 or more hospitalizations: | 15,094 3,585 | 5,330 1,004 | 9,764 | 150 | 80 | 71 | 4.2 | 8.0 | 2.8 |
| 17-24$45-64$$45-6$ years | 6,275 | 1,883 | 4,393 | 262 | 173 | 89 | 4.2 | 9.2 3 | 2.0 1.4 |
|  | 5,234 | 2,443 | 2,791 | 123 | 84 | 39 | 2.4 | 3.4 | 1.4 |

${ }_{2}^{1}$ Includes unknown blood donor status.
${ }^{2}$ Includes unknown health status, doctor visits, and hospital episodes.
NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 9. Percent distribution of blood donors by number of times they gave blood, according to sex, color, and age: United states, based on data collected during 1973
[Data are based on household intervicws of the civilian, noninstatutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Defintions of terms are given in appendix II]

| Color and age | Times gave blood in past year |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | 1 time |  |  | 2 times |  |  | 3 or more times |  |  |
|  |  | Both sexes | Male | Female | Both sexes | Male | Female | Both <br> sexes | Male | Female |
| Total | Percent distribution of blood donors |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 100.0 | 67.1 | 65.4 | 71.6 | 19.5 | 20.2 | 17.6 | 13.4 | 14.4 | 10.8 |
| 17-24 years$25-44$ years$45-64$ years | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 72.3 \\ & 65.2 \\ & 66.3 \end{aligned}$ | $\begin{aligned} & 71.5 \\ & 63.7 \\ & 64.0 \end{aligned}$ | $\begin{aligned} & 73.7 \\ & 70.2 \\ & 71.7 \end{aligned}$ | $\begin{aligned} & 18.4 \\ & 19.2 \\ & 21.2 \end{aligned}$ | $\begin{aligned} & 18.2 \\ & 20.1 \\ & 22.3 \end{aligned}$ | $\begin{aligned} & 18.5 \\ & 16.3 \\ & 18.7 \end{aligned}$ | $\begin{array}{r} 9.4 \\ 15.5 \\ 12.5 \end{array}$ | $\begin{aligned} & 10.2 \\ & 16.2 \\ & 13.8 \end{aligned}$ | $\begin{array}{r} 7.8 \\ 13.5 \\ 9.8 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| White |  |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years-- | 100.0 | 67.1 | 65.4 | 71.5 | 19.5 | 20.4 | 17.5 | 13.3 | 14.3 | 11.0 |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 72.5 \\ & 65.1 \\ & 66.4 \end{aligned}$ | $\begin{aligned} & 72.1 \\ & 63.6 \\ & 63.8 \end{aligned}$ | $\begin{aligned} & 73.6 \\ & 69.9 \\ & 71.9 \end{aligned}$ | $\begin{aligned} & 18.7 \\ & 19.7 \\ & 21.1 \end{aligned}$ | $\begin{aligned} & 18.6 \\ & 20.1 \\ & 22.6 \end{aligned}$ | $\begin{aligned} & 18.7 \\ & 16.3 \\ & 17.9 \end{aligned}$ | $\begin{array}{r} 8.8 \\ 15.8 \\ 12.4 \end{array}$ | $\begin{array}{r} 9.4 \\ 16.4 \\ 13.5 \end{array}$ | $\begin{array}{r} 7.7 \\ 13.8 \\ 10.2 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| All other |  |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years-- | 100.0 | 67.2 | 65.5 | 73.9 | 18.6 | 18.3 | * | 14.2 | 16.1 | * |
|  | 100.0 | 68.467.764.3 | $\begin{aligned} & 66.2 \\ & 65.6 \\ & 63.6 \end{aligned}$ | 75.0 | $*$19.6$*$ | 20.6 | $*$$*$$\%$ | $*$$*$$*$ | $*$$*$$*$ | $*$$*$$*$ |
| 25-44 years--w--------------- | 100.0 |  |  |  |  |  |  |  |  |  |
| 4-64 year |  |  |  |  |  |  |  |  |  |  |

NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 10. Number of blood donors, number of blood donations, and average number of donations per donor, by sex, color, and age: United States, based on data collected during 1973
[Data are bused on househoid interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard error charts is on page 62 .

Table 11. Percent distribution of blood donors by number of times they gave blood, according to sex, family income, and age: United States, based on data collected during 1973
[Data are based on household interviews of the civlian, nonnstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


[^9]NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 12. Number of blood donors, number of blood donations, and average number of donations per donor, by sex, family income, and age: United States, based on data collected during 1973
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability wf the estimates are given in appendix I. Definitions of terms are aven in appendia II]


[^10]NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard exror charts is on page 62 .

Table 13. Percent distribution of blood donors by number of times they gave blood, according to sex, education of individual, and age: United States, based on data collected during 1973
[Data are based on houschold intervews of the civilian, noninstitutionaized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


[^11]NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 14. Number of blood donors, number of blood donations, and average number of donations per donor, by sex, education of individual, and age: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Education of individual and age | Both sexes |  |  | Male |  |  | Female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of blood donors of thousands | Number of donations in thousands | Average number of donations per donor | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor |
| All education groups ${ }^{1}$ |  |  |  |  |  |  |  |  |  |
| All ages 17-64 yearsm- | 6,461 | 10,215 | 1.6 | 4,635 | 7,538 | 1.6 | 1,827 | 2,676 | 1.5 |
| 17-24 years---------------- | 1,486 | 2,182 | 1.5 | 950 | 1,419 | 1.5 | 536 | 763 | 1.4 |
|  | 3,364 | 5,523 | 1.6 | 2,571 | 4,316 | 1.7 | 793 | 1,207 | 1.5 |
| 45-64 years-n-----m-------- | 1,612 | 2,510 | 1.6 | I,113 | 1,803 | 1.6 | 498 | 707 | 1.4 |
| Less than 12 years |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 1,077 | 1,670 | 1.6 | 825 | 1,281 | 1.6 | 252 | 389 | 1.5 |
| 17-24 years-----m------.-- | 154 | 228 | 1.5 | 120 | 181 | 1.5 | * | * | * |
|  | 489 | 799 | 1.6 | 387 | 626 | 1.6 | 102 | 173 | 1.7 |
|  | 434 | 643 | 1.5 | 318 | 475 | 1.5 | 116 | 168 | 1.4 |
| 12 years |  |  |  |  |  |  |  |  |  |
| All ages 17-64 yearsm- | 2,637 | 4,148 | 1.6 | 1,797 | 2,943 | 1.6 | 840 | 1,205 | 1.4 |
|  | 605 | 870 | 1.4 | 409 | 609 | 1.5 | 196 | 262 | 1.3 |
| 25-44 years--------------- | 1,389 | 2,257 | 1.6 | 993 | 1,666 | 1.7 | 396 | 591 | 1.5 |
| 45-64 years----------------- | 644 | 1,021 | 1.6 | 395 | 668 | 1.7 | 249 | 353 | 1.4 |
| 13 years or more |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 2,721 | 4,326 | 1.6 | 1,997 | 3,283 | 1.6 | 724 | 1,042 | 1.4 |
| 17-24 years--------------... |  | 1,044 | 1.5 | 418 | 622 | 1.5 | 300 | 421 | 1.4 |
|  | 1,479 | 2,455 | 1.7 | 1,187 | 2,019 | 1.7 | 292 | 436 | 2.5 |
|  | 524 | 827 | 1.6 | 392 | 642 | 1.6 | 132 | 185 | 1.4 |

${ }^{1}$ Includes unknown education.
NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard error charts is on page 62 .

Table 15. Percent distribution of blood donors by number of times they gave blood, according to sex, geographic region, and age: United States, based on data collected during 1973
[Data are based on household intervews of the civilian, nonnstitutionalized population. The survey design, gencral qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Geographic region and age | Times gave blood in past year |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | 1 time |  |  | 2 times |  |  | 3 or more times |  |  |
|  |  | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female |
| All regions | Percent distribution of blood donors |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 100.0 | 67.1 | 65.4 | $71.6$ | 19.5 | 20.2 | 17.6 | 13.4 | 14.4 | 10.8 |
|  | 100.0 | 72.3 | 71.5 | 73.7 | 18.4 | $\begin{aligned} & 18.2 \\ & 20.1 \\ & 22.3 \end{aligned}$ | $\begin{aligned} & 18.5 \\ & 16.3 \\ & 18.7 \end{aligned}$ | $\begin{array}{r} 9.4 \\ 15.5 \\ 12.5 \end{array}$ | $\begin{aligned} & 10.2 \\ & 16.2 \\ & 13.8 \end{aligned}$ | $\begin{array}{r} 7.8 \\ 13.5 \\ 9.8 \end{array}$ |
|  | 100.0 | 65.2 | 63.7 | 70.2 | 19.2 |  |  |  |  |  |
|  | 100.0 | 66.3 | 64.0 | 71.7 | 21.2 |  |  |  |  |  |
|  | 100.0 | 67.9 | 66.4 | 72.2 | 20.5 | 21.0 | 19.2 | 11.6 | 12.7 | 8.8 |
| 17-24 years----n--m-------n- | 100.0 | 73.0 | 70.6 | 77.2 | 19.2 | 20.2 | * | \% | $\begin{array}{r} * \\ 13.5 \\ 13.0 \end{array}$ | $*$$*$$*$ |
| 25-44 years--w----------------1 | 100.0 | 64.8 | 64.2 | 67.1 | 22.0 | 22.3 | 21.0 | 13.2 |  |  |
| 45-64 years------------------ | 100.0 | 69.5 | 68.1 | 72.9 | 18.8 | 18.9 | * | 11.7 |  |  |
| North Central |  |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 100.0 | 70.1 | 68.3 | 74.2 | 18.2 | 19.8 | 14.5 | 11.7 | 11.9 | 11.2 |
| 17-24 years----------------- | 100.0 | $\begin{aligned} & 73.9 \\ & 69.1 \\ & 68.8 \end{aligned}$ | $\begin{aligned} & 73.6 \\ & 67.1 \\ & 66.1 \end{aligned}$ | $\begin{aligned} & 74.5 \\ & 75.2 \\ & 73.4 \end{aligned}$ | $\begin{aligned} & 16.6 \\ & 17.7 \\ & 20.6 \end{aligned}$ | $\begin{aligned} & 17.9 \\ & 18.8 \\ & 23.8 \end{aligned}$ | $*$$\%$$\%$ | $\begin{array}{r} 9.7 \\ 13.3 \\ 10.7 \end{array}$ | $14.0$ | $*$$*$$*$ |
|  | 100.0 |  |  |  |  |  |  |  |  |  |
|  | 100.0 |  |  |  |  |  |  |  |  |  |
| South |  |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years-- | 100.0 | 66.1 | 64.4 | 71.9 | 19.6 | 19.9 | 18.4 | 14.3 | 15.7 | 9.7 |
|  | 100.0 | $\begin{aligned} & 71.6 \\ & 64.3 \\ & 64.5 \end{aligned}$ | $\begin{aligned} & 69.6 \\ & 62.3 \\ & 64.2 \end{aligned}$ | $\begin{aligned} & 76.5 \\ & 73.1 \\ & 65.4 \end{aligned}$ | $\begin{aligned} & 19.8 \\ & 18.4 \\ & 22.1 \end{aligned}$ | $\begin{aligned} & 19.4 \\ & 19.9 \\ & 20.4 \end{aligned}$ | $\begin{aligned} & \% \\ & \dot{*} \\ & \% \end{aligned}$ | $\begin{array}{r} 8.8 \\ 17.2 \\ 13.4 \end{array}$ | $\begin{aligned} & 11.0 \\ & 17.8 \\ & 15.4 \end{aligned}$ | $*$$*$$*$ |
|  | 100.0 |  |  |  |  |  |  |  |  |  |
|  | 100.0 |  |  |  |  |  |  |  |  |  |
| West |  |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 100.0 | 62.6 | 60.4 | 67.1 | 20.0 | 20.4 | 19.3 | 17.3 | 19.2 | 13.6 |
| 17-24 years---n-------------1 | 100.0 | $\begin{aligned} & 69.7 \\ & 61.5 \\ & 59.0 \end{aligned}$ | $\begin{aligned} & 72.9 \\ & 59.7 \\ & 52.9 \end{aligned}$ | $\begin{aligned} & 65.3 \\ & 65.3 \\ & 74.0 \end{aligned}$ | $\begin{aligned} & 17.7 \\ & 18.8 \\ & 24.4 \end{aligned}$ | $\begin{aligned} & 19 .{ }^{*} \\ & 28.6 \end{aligned}$ | 18.3 | $\begin{array}{r} * \\ 19.5 \\ 16.5 \end{array}$ | *21.218.5 | 16.4 |
|  | 100.0 |  |  |  |  |  |  |  |  |  |
| 45-64 years--n---n-m--------- | 100.0 |  |  |  |  |  |  |  |  |  |

NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 16. Number of blood donors, number of blood donations, and average number of donations per donor, by sex, geographic region, and age: United States, based on data collected during 1973
[Data are based on household inteniews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliatility of the estimates are siven in appendix I. Definitions of terms are given in appendix M]


NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard error charts is on page 62.

Table 17. Percent distribution of blood donors by number of times they gave blood, according to sex, place of residence, and age: United States, based on data collected during 1973
[Data are based on household intervicws of the civilian, noninstatutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Place of residence and age | Times gave blood in past year |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | 1 time |  |  | 2 times |  |  | 3 or more times |  |  |
|  |  | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female |
| All residences | Percent distribution of blood donors |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 100.0 | 67.1 | 65.4 | 71.6 | 19.5 | 20.2 | 17.6 | 13.4 | 14.4 | 10.8 |
|  | 100.0 | $\begin{aligned} & 72.3 \\ & 65.2 \\ & 66.3 \end{aligned}$ | $\begin{aligned} & 71.5 \\ & 63.7 \\ & 64.0 \end{aligned}$ | $\begin{aligned} & 73.7 \\ & 70.2 \\ & 71.7 \end{aligned}$ | $\begin{aligned} & 18.4 \\ & 19.2 \\ & 21.2 \end{aligned}$ | $\begin{aligned} & 18.2 \\ & 20.1 \\ & 22.3 \end{aligned}$ | $\begin{aligned} & 18.5 \\ & 16.3 \\ & 18.7 \end{aligned}$ | $\begin{array}{r} 9.4 \\ 15.5 \\ 12.5 \end{array}$ | $\begin{aligned} & 10.2 \\ & 16.2 \\ & 13.8 \end{aligned}$ | $\begin{array}{r} 7.8 \\ 13.5 \\ 9.8 \end{array}$ |
|  | 100.0 |  |  |  |  |  |  |  |  |  |
|  | 100.0 |  |  |  |  |  |  |  |  |  |
| AII SMSA |  |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 100.0 | 67.8 | 66.3 | 72.0 | 18.7 | 19.0 | 17.7 | 13.5 | 14.7 | 10.3 |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 71.9 \\ & 66.1 \\ & 67.5 \end{aligned}$ | $\begin{aligned} & 70.5 \\ & 64.7 \\ & 66.1 \end{aligned}$ | $\begin{aligned} & 74.3 \\ & 71.0 \\ & 71.0 \end{aligned}$ | $\begin{aligned} & 17.8 \\ & 18.2 \\ & 20.7 \end{aligned}$ | $\begin{aligned} & 17.7 \\ & 18.7 \\ & 21.3 \end{aligned}$ | $\begin{aligned} & 17.9 \\ & 16.5 \\ & 19.4 \end{aligned}$ | $\begin{aligned} & 10.4 \\ & 15.7 \\ & 11.8 \end{aligned}$ | $\begin{aligned} & 11.8 \\ & 16.7 \\ & 12.6 \end{aligned}$ | 12. ${ }_{\text {* }}^{4}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Central city: |  |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-~ | 100.0 | 67.1 | 64.8 | 72.6 | 18.0 | 18.9 | 15.7 | 15.0 | 16.3 | 11.8 |
| 17-24 years----------------1 | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 71.9 \\ & 64.2 \\ & 67.6 \end{aligned}$ | $\begin{aligned} & 68.6 \\ & 62.0 \\ & 67.5 \end{aligned}$ | $\begin{aligned} & 78.3 \\ & 71.3 \\ & 67.2 \end{aligned}$ | $\begin{aligned} & 17.2 \\ & 17.4 \\ & 20.3 \end{aligned}$ | $\begin{aligned} & 20.1 \\ & 18.2 \\ & 18.8 \end{aligned}$ | *15.0$*$ | $\begin{aligned} & 10.9 \\ & 18.4 \\ & 12.1 \end{aligned}$ |  | * |
| 25-44 years---------------- |  |  |  |  |  |  |  |  | 11.319.7 | * |
|  |  |  |  |  |  |  |  |  |  |  |
| Outside central city: |  |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years- | 100.0 | 68.4 | 67.2 | 71.6 | 19.2 | 19.2 | 19.3 | 12.4 | 13.6 | 9.3 |
| 17-24 years-m---n---------- | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 71.8 \\ & 67.5 \\ & 67.5 \end{aligned}$ | $\begin{aligned} & 72.3 \\ & 66.6 \\ & 65.2 \end{aligned}$ | $\begin{array}{r} 71.3 \\ 70.8 \\ 72.9 \end{array}$ | $\begin{aligned} & 18.4 \\ & 18.7 \\ & 20.9 \end{aligned}$ | $\begin{aligned} & 15.1 \\ & 18.9 \\ & 22.6 \end{aligned}$ | $\begin{aligned} & 23.8 \\ & 17.8 \\ & 17.0 \end{aligned}$ | $\begin{array}{r} 9.9 \\ 13.9 \\ 11.6 \end{array}$ | 12.614.512.2 | 11.4 ${ }^{*}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Outside SMSA |  |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years-- | 100.0 | 65.2 | 62.8 | 70.8 | 21.7 | 23.7 | 17.0 | 13.1 | 13.5 | 12.1 |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 73.8 \\ & 62.8 \\ & 63.3 \end{aligned}$ | $\begin{aligned} & 74.9 \\ & 60.7 \\ & 58.5 \end{aligned}$ | $\begin{aligned} & 71.9 \\ & 68.3 \\ & 73.2 \end{aligned}$ | $\begin{aligned} & 20.2 \\ & 22.1 \\ & 22.3 \end{aligned}$ | $\begin{aligned} & 20.2 \\ & 24.4 \\ & 24.9 \end{aligned}$ | 15. ${ }_{\text {* }}$ * | $\begin{array}{r} * \\ 15.2 \\ 14.4 \end{array}$ | $\begin{array}{r} * \\ 14.9 \\ 16.6 \end{array}$ | $16 .{ }_{*}^{*}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Nonfarm: |  | 65.4 |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years-- | 100.0 |  | 63.1 | 70.8 | 20.9 | 22.6 | 17.1 | 13.7 | 14.3 | 12.3 |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 73.1 \\ & 62.8 \\ & 64.1 \end{aligned}$ | $\begin{aligned} & 74.8 \\ & 60.1 \\ & 60.2 \end{aligned}$ | $\begin{aligned} & 70.2 \\ & 70.3 \\ & 71.4 \end{aligned}$ | $\begin{aligned} & 20.5 \\ & 21.0 \\ & 21.2 \end{aligned}$ | $\begin{aligned} & 19.5 \\ & 23.8 \\ & 22.0 \end{aligned}$ | $\begin{aligned} & * \\ & * \\ & * \end{aligned}$ | $\begin{array}{r} * \\ 16.2 \\ 14.6 \end{array}$ | $\begin{array}{r} \text { * } \\ 16.0 \\ 17.4 \end{array}$ | 16.7 ${ }_{\text {* }}^{*}$ |
| 25-44 years-n--------------- |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Farm: |  |  |  |  |  |  | $*$$*$$*$$*$ | $*$$*$$*$$*$ | $*$$*$$*$$*$$*$ |  |
| Al1 ages 17-64 years-- | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | 63.7$*$63.058.6 | 60.2*67.2$*$ | $*$$*$$*$$*$ | 28.7$*$$*$$*$ | 33.3$*$$*$$*$ |  |  |  | * |
| 17-24 years----------------- |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 45-64 years--m-n---m------- |  |  |  |  |  |  |  |  |  |  |

NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 18. Number of blood donors, number of blood donations, and average number of donations per donor, by sex, place of residence, and age: United States, based on data collected during 1973
[Data are based om houschold interviews of the civilian, noninstitutionalized population. The survey cicsign, general qualfications, and information on the reliability of the estimates are given in appendix l. Detinitions of terms are given in appendix II!

| Place of residence and age | Both sexes |  |  | Male |  |  | Female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor: | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor |
| All residences |  |  |  |  |  |  |  |  |  |
| AII ages 17-64 years-- | 6,461. | 10,215 | 1.6 | 4,635 | 7,538 | 1.6 | 1,827 | 2,676 | 1.5 |
| 17-24 years-------m---...- | *1,486 | 2,182 | 1.5 | 950 | 1,419 | 1.5 | 536 | 763 | 1.4 |
| 25-44 years-----------1.-- | 3,364 | 5,523 | 1.6 | 2,571 | 4,316 | 1.7 | 793 | 1,207 | 1.5 |
|  | 1,612 | 2,510 | 1.6 | 1,113 | 1,803 | 1.6 | 498 | - 707 | 1.4 |
| Al1 SMSA |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 4,762 | 7,529 | 1.6 | 3,446 | 5,594 | 1.6 | 1,316 | 1,935 | 1.5 |
| 17-24 years---------------- | 1,135 | 1,707 | 1.5 | 728 | 1,119 | 1.5 | 408 | 588 | 1.4 |
| 25-44 years-m-------------- | 2,481 | 4,089 | 1.6 | 1,919 | 3,237 | 1.7 | 563 | 852 | 1.5 |
| 45-64 years--------------- | 1,145 | 1,732 | 1.5 | 800 | 1,237 | 1.5 | 345 | 495 | 1.4 |
| Central city:         <br> All ages $17-64$ years-- 1,970 3,245 1,6 1,411 2,391 1,7 559 8 |  |  |  |  |  |  |  |  |  |
| 17-24 years------------- | 548 | 856 | 1.6 | 363 | 574 | 1.6 | 184 | 282 | 1.5 |
| 25-44 years------------- | 1,018 | 1,779 | 1.7 | 771 | 1,392 | 1.8 | 247 | 388 | 1.6 |
| 45-64 years------------- | 404 | 610 | 1.5 | 277 | - 425 | 1.5 | 128 | 185 | 1.4 |
|  |  |  |  |  |  |  |  |  |  |
| 17-24 years------------- | 588 | 852 | 1.4 | 364 | 545 | 1.5 |  |  |  |
| 25-44 yearsm------------ | 1,463 | 2,310 | 1.6 | 1,148 | 1,846 | 1.6 | 315 | 464 | 1.4 |
| 45-64 years------------- | 741 | 1,122 | 1.5 | 523 | -812 | 1.6 | 218 | 311 | 1.4 |
| Outside SMSA |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 1,699 | 2,685 | 1.6 | 1,188 | 1,944 | 1.6 | 511 | 741 | 2.5 |
| 17-24 years---------------- | 351 | 474 | 1.4 | 223 | +299 | 1.3 | 128 | 175 | 1.4 |
| 25-44 years-m..------------ | 882 | 1,434 | 1.6 | 652 | 1,079 | 1.7 | 230 | 355 | 1.5 |
| 45-64 years---------------- | 466 | 778 | 1.7 | 313 | 566 | 1.8 | 153 | 212 | 1.4 |
| Nonfarm: |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 1,528 | 2,437 | 1.6 | 1,065 | 1,765 | 1.7 | 463 | 672 | 1.5 |
| 17-24 years-------------- | 331 | 451 | 1.4 | 210 | 283 | 1.3 | 121 | 168 | 1.4 |
| 25-44 years-.------------- | 801 | 1,316 | 1.6 | 592 | 996 | 1.7 | 209 | 319 | 1.5 |
| 45-64 years-------------- | 396 | 670 | 1.7 | 264 | 485 | 1.8 | 133 | 185 | 1.4 |
| Faxm: |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 171 | 248 | 1.5 | 123 | 179 | 1.5 | 48 | 69 | 1.4 |
| 17-24 years------------- | * | * | * | * | * | * | * | * | * |
| 25-44 years-----..------- | 81 | 118 | 1.5 | 61 | 82 | 1.3 | * | * | * |
| 45-64 years------------- | 70 | 108 | 1.5 | 50 | 81 | 1.6 | * | * | * |

NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard error charts is on page 62.

Tiable 19. Percent distribution of blood donors by number of times they gave blood, according to sex, labor force status, occupation, and age: United States, based on data collected during 1973
[Data are based on househoid interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


[^12]Table 20. Number of blood donors, number of blood donations, and average number of donations per donor, by sex, labor force status, occupation, and age: United States, based on data collected during 1973
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The surey design, general qualifications, and information on the relishility of the estimates are siven in appendix I. Definitions of terms are given in appendix II]

| Labor force status, occupation, and age | Both sexes |  |  | Male |  |  | Female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor |
| All statuses |  |  |  |  |  |  |  |  |  |
| All ages 17-64 | 6,461 | 10,215 | 1.6 | 4,635 | 7,538 | 1.6 | 1,827 | 2,676 | 1.5 |
| 17-24 years--------------- | $\begin{aligned} & 1,486 \\ & 3,364 \\ & 1,612 \end{aligned}$ | $\begin{aligned} & 2,182 \\ & 5,523 \\ & 2,510 \end{aligned}$ | 1.51.6 | $\begin{array}{r} 950 \\ 2,571 \\ 1,113 \end{array}$ | $\begin{aligned} & 1,419 \\ & 4,316 \\ & 7,803 \end{aligned}$ | 1.51.7 | 536793498 | $\begin{array}{r} 763 \\ 1,207 \\ 707 \end{array}$ | 1.4 |
| 25-44 years-----------m-n- |  |  |  |  |  |  |  |  | 1.4 |
|  |  |  | 1.6 |  |  | 1.6 |  |  | 1.4 |
| In labor force ${ }^{1}$ |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years------------------ | 5,731 | 9,045 | 1.6 | 4,390 | 7,120 | 1.6 | 1,341 | 1,926 | 1.4 |
| 17-24 years-0-0------------ | $\begin{aligned} & 1,243 \\ & 3,062 \\ & 1,426 \end{aligned}$ |  | 1.5 | 810 | 1,210 | 1.5 | 433 | 599 | 1.4 |
|  |  | $\begin{aligned} & 1,010 \\ & \mathbf{5}, 010 \\ & \mathbf{2 , 2 2 5} \end{aligned}$ | 1.61.6 | 2,502 | 4, 1721,737 | 1.7 | 560348 | 8388 | 1.5 |
|  |  |  |  |  |  | 1.6 |  |  |  |
| White-collar workers: |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years | 2,766 | 4,377 | 1.6 | 1,883 | 3,123 | 1.7 | 883 | 1,254 | 1.4 |
|  | 51,512730 |  | 1.4 | 245 | 350 | 1.4 | 278 | 372 | 1.3 |
|  |  | $\begin{aligned} & 2,469 \\ & 1,186 \end{aligned}$ | 1.6 | 1,129509 | $\begin{array}{r}1,896 \\ \hline 878\end{array}$ | 1.7 | 384221 | 574308 | 1.5 |
| 45-64 years-------------- |  |  |  |  |  |  |  |  | 1.4 |
| Blue-collar workers: |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years | 2,101 | 3,359 | 1.6 | 1,903 | 3,086 | 1.6 | 198 | 274 | 1.4 |
| 17-24 уears------------- |  |  | 1.5 | 428 | 662 | 1.5 | 54 | 77 | 1.4 |
|  | $1, \frac{122}{497}$ | $\begin{array}{r} 1,867 \\ 753 \end{array}$ | 1.7 | $\begin{array}{r} 1,035 \\ 440 \end{array}$ | 1,751673 | 1.7 | 57 | 117 | 1.3 |
| 45-64 years-m-n-m-n----- |  |  |  |  |  |  |  | 80 | 1.4 |
| Farm and service workers: <br> A11 ages 17-64 |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 <br> years. | 605 | 932 | 1.5 | 400 | 603 | 1.5 | 205 | 329 | 1.6 |
| 17-24 years--------------- |  |  | 1.5 | 89 | 133 | 1.5 | 72 | 114 | 1.6 |
| 25-44 years------------ | $\begin{aligned} & 102 \\ & 299 \\ & 145 \end{aligned}$ | $\begin{aligned} & 247 \\ & 467 \\ & 218 \end{aligned}$ | 1.6 | 22487 | 1337133 | 1.5 | 75 | 130 | 1.7 |
| 45-64 years--------------- |  |  |  |  |  | 1.5 | 59 | 85 | 1.4 |
| Not in labor force |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years | 730 | 1,169 | 1.6 | 245 | 418 | 1.7 | 485 | 751 | 1.5 |
|  | 243302185 |  |  | 140 |  | 1.5 | 103 | 164 | 1.6 |
|  |  | $\begin{aligned} & 513 \\ & 284 \end{aligned}$ | 1.7 | $69$ | 144 | 2.1 | 232 | 369 | 1.6 |
|  |  |  | 1.5 | 36 | -66 | 1.8 | 150 | 218 | 1.5 |

[^13]Table 21. Percent distribution of male blood donors by number of times they gave blood, according to veteran status and age: United States, based on data collected during
1973
[Data are based on household intervic ws of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Veteran status and age | Times gave blood in past year |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Total | 1 time | 2 times | or more times |
| All statuses | Percent distribution of male blood donors |  |  |  |
| A11 ages 17-64 years--------------- | 100.0 | 65.4 | 20.2 | 14.4 |
|  | 100.0 | 71.5 | 18.2 |  |
| 25-44 years---------------------------------- | 100.0 | 63.7 | 20.1 | 16.2 |
| 45-64 years-------------------------------- | 100.0 | 64.0 | 22.3 | 13.8 |
| Veteran |  |  |  |  |
| A11 ages 17-64 years-------------- | 100.0 | 63.2 | 20.9 | 15.9 |
| 17-24 years--------------------------------- | 100.0 | 70.8 | 19.0 | * |
| 25-44 years | 100.0 | 62.1 | 20.4 | 17.4 |
| 45-64 years | 100.0 | 63.3 | 22.4 | 14.4 |
| Wartime: |  |  |  |  |
| All ages 17-64 years-------------- | 100.0 | 63.4 | 21.0 | 15.6 |
| 17-24 years------------------------------- | 100.0 | 70.6 | 19.4 | * |
|  | 100.0 | 62.2 | 20.4 | 17.4 |
| 45-64 years- | 100.0 | 63.1 | 22.4 | 14.7 |
| Peacetime only: |  |  |  |  |
| All ages 17-64 years-------------- | 100.0 | 62.4 | 20.4 | 17.2 |
|  | 100.0 | * | * | * |
| 25-44 years | 100.0 | 62.1 | 20.3 | 17.7 |
| Nonveteran |  |  |  |  |
| A11 ages 17-64 years-------------- | 100.0 | 68.0 | 19.4 | 12.6 |
| 17-24 years-------------------------------- | 100.0 | 71.8 | 18.1 |  |
| 25-44 years- | 100.0 | 65.9 | 19.7 | 14.4 |
|  | 100.0 | 65.8 | 21.9 | 12.3 |

NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62 .

Table 22. Number of male blood donors, number of blood donations from males, and average number of donations per male donor, by veteran status and age: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix. I. Definitions of terms are given in appendix II]

| Veteran status and age | Number of male blood donors in thousands | Number of blood donations from males in thousands | Average number of donations per male donor |
| :---: | :---: | :---: | :---: |
| All statuses |  |  |  |
| All ages 17-64 years-------------- | 4,635 | 7,538 | 1.6 |
| 17-24 years | 950 | 1,419 | 1.5 |
| 25-44 years | 2,571 | 4,316 | 1.7 |
|  | 1,113 | 1,803 | 1.6 |
| Veteran |  |  |  |
| A11 ages 17-64 years-------------- | 2,545 | 4,296 | 1.7 |
|  | 216 | 320 | 1.5 |
|  | 1,508 | 2,622 | 1.7 |
|  | 822 | 1,354 | 1.6 |
| Wartime: |  |  |  |
| All ages 17-64 years-------------- | 2,103 | 3,563 | 1.7 |
| 17-24 years-.-- | 211 | 311 | 1.5 |
| 25-44 years- | 1,088 | 1,920 | 1.8 |
|  | 804 | 1,332 | 1.7 |
| Peacetime only: |  |  |  |
| A11 ages 17-64 years--------------- | 442 | 733 | 1.7 |
| 17-24 years- | * | * | * |
| 25-44 years | 419 | 702 | 1.7 |
|  |  |  |  |
|  | 2,089 | 3,242 | 1.6 |
| 17-24 years--------------------------------- | 734 | 1,099 | 1.5 |
|  | 1,063 | 1,694 | 1.6 |
|  | 292 | 449 | 1.5 |

NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard error charts in on page 62.

Table 23. Percent distribution of blood donors by number of times they gave blood, according to sex, selected health indexes, and age: United States, based on data collected during 1973
[Data are based on houschold intervews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


[^14]NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 24. Number of blood donors, number of blood donations, and average number of donations per donor, by sex, selected health Indexes, and age: United States, based on data collected during 1973
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, gencral qualifications, and information on the reliablity of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Selected health index and age | Both sexes |  |  | Male |  |  | Female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor | Number of blood donors in thousands | Number of donations in thousands | Average number of donations per donor |
| A11 Indexes ${ }^{1}$ <br> A11 ages 17-64 years-- | 6,461 | 10,215 | 1.6 | 4;635 | 7,538 | 1.6 | 1,827 | 2,676 | 1.5 |
|  | 1,486 3,364 1,612 | $\begin{array}{r}2,182 \\ 5,523 \\ \hline 2,510\end{array}$ | 1.5 1.6 1.6 | 950 2,571 1,113 | 1,419 4,316 1,803 | 1.5 1.7 1.6 | 536 793 498 | 763 1,207 707 | 1.4 1.5 1.4 |
| Health status |  |  |  |  |  |  |  |  |  |
| Excellent: <br> All ages $17-64$ years-- | 3,951 | 6,397 | 1.6 | 2,961 | 4,923 | 1.7 | 990 | 1,474 | 1.5 |
| 17-24 years------------- | 894 | 1,329 | 1.5 | 597 | 917 | 1.5 | 297 | 413 | 1.4 |
| 25-44 years-------------- | 2,178 | 3,625 | 1.7 | 1,732 | 2,934 | 1.7 | 446 | 691 | 1.5 |
| 45-64 years-------------- | 2,879 | 1,443 | 1.6 | - 632 | 1,073 | 1.7 | 247 | 370 | 1.5 |
| Good: |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years-- | 2,176 | 3,301 | 1.5 | 1,446 | 2,250 | 1.6 | 731 | 1,051. | 1.4 |
| 17-24 years-- | 510 | 729 | 1.4 | 297 | 414 | 1.4 | 21.3 | 315 | 1.5 |
| 25-44 yearsm------------- | 1,063 | 1,707 | 1.6 | 753 | 1,243 | 1.7 | 311 | 463 | 1.5 |
| 45-64 years------------- | 603 | 865 | 1.4 | 396 | 592 | 1.5 | 207 | 273 | 1.3 |
| Fair or poor: <br> All ages 17-64 years-- | 300 | 465 | 1.6 | 199 | 320 | 1.6 | 101 | 145 | 1.4 |
|  | 66 | 102 | 1.5 | 40 | 67 | 1.7 | * | * | * |
|  | 112 122 | 177 | 1.6 | 79 80 | 128 125 | $\frac{1.6}{1.6}$ | $4{ }^{*}$ | $6{ }^{*}$ | 1.5 |
| Doctor visits <br> in past year |  |  |  |  |  |  |  |  |  |
| No visits: <br> All ages 17-64 years-- | 1,596 | 2,514 | 1.6 | 1,291 | 2,057 | 2.6 | 305 | 456 | 1.5 |
| 17-24 years---------------------- | 302 860 | 463 1,374 | 1.5 | 229 738 | 357 1,194 | 1.6 | $\begin{array}{r}74 \\ 122 \\ \hline\end{array}$ | 105 180 | 1.4 |
| 25-44 years-----w--------------- | 860 434 | 1,374 677 | 1.6 | 738 325 | 1,194 | 1.6 | 109 | 171 | 1.6 |
| 1-4 visits: <br> All ages 17-64 years-- | 3,753 | 5,925 | 1.6 | 2,691 | 4,383 | 1.6 | 1,062 | 1,542 | 1.5 |
| 17-24 years------w------ | 887 | 1,289 | 1.5 | 573 | 840 | 1.5 | 315 | 449 | 3.4 |
| 25-44 years------------- | 1,942 | 3,211 | 1.7 | 1,492 | 2,513 | 1.7 | 450 | 698 | 2.6 |
| 45-64 yearsm------------- | -924 | 1,425 | 1.5 | 626 | 1,030 | 1.6 | 298 | 395 | 1.3 |
| 5 or more visits: <br> All ages 17-64 years-- |  |  | 1.6 | 609 | 1,029 | 1.7 | 444 | 651 | 2.5 |
|  | 1,053 | 1,680 402 | 1.6 | 132 | 1,029 | 1.5 | 144 | 203 | 1.4 |
| 17-24 years <br>  | 276 537 | 402 895 | 1.5 | 132 321 | 574 | 1.8 | 216 | 321 | 1.5 |
| 45-64 years--------------1-2- | 239 | 383 | 1.6 | 156 | 256 | 1.6 | 83 | 127 | 1.5 |
| Hospital episodes in past year |  |  |  |  |  |  |  |  |  |
| No hospitalizations: All ages 17-64 years-- | 5,925 | 9,298 | 1.6 | 4,298 | 6,916 | 1.6 | 1,627 | 2,381 | 1.5 |
| 17-24 years------------ | 1,336 | 1,950 | 1.5 | 870 | 1,273 | 1.5 | 465 | 677 | 1.5 |
| 25-44 years------------- | 3,101 | 5,043 | 1.6 | 2,398 | 3,987 | 1.7 | 703 | 1,056 | 1.5 |
| 45-64 years------m-n---- | 1,488 | 2,305 | 1.5 | 1,030 | 1,657 | 1.6 | 459 | 649 | 1.4 |
| 1 or more hospitalizations: |  |  |  |  | . |  |  |  |  |
| All ages 17-64 years-- | 536 | 917 | 1.7 | 336 | 622 | 1.9 | 200 | 295 | 1.5 |
| 17-24 years------------- | 150 | 232 | 1.5 | 80 | 146 | 1.8 | 71 | 86 | 1.2 |
| 25-44 years------------- | 262 | 480 | 1.8 | 173 | 329 | 1.9 |  | 151 | 1.7 |
| 45-64 years------------- | 123 | 205 | 1.7 | 84 | 147 | 1.8 | 39 | * | * |

[^15]Table 25. Number and percent distribution of blood donors by number of times they donated blood for each reason, according to sex, reason for donation, and age: United States, based on data collected during 1973
[Data ale based on household interviews of the, cevilan, nonumettutionalieed pupulation. The surver design, generai quahifations, and information on the reliability of the estimates are given in appendiv I. Definitions of terms are given in appendir II]

${ }^{1}$ The categories in this table are not matually exclusive since some donors with more than one donation gave for different reasons.

NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 26. Percent distribution of blood donations by reason for donation, according to sex, age, and color: United States, based on data collected during 1973
[Data are based on houschold interviews of the civilinn, noninstitutionalized population. The suncy design, uencral qualifications, and infurmation on the reliatility of the estimates are siven in appendix I. Definitions of terms are diven in appendix II]

| Color and reason for donation | Both sexes |  |  |  | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Al1 ages } \\ & 17-64 \\ & \text { years } \end{aligned}$ | 17-24 years | $25-44$ <br> years | 45-64 years | All ages 17-64 years | 17-24 | $\begin{aligned} & 25-44 \\ & \text { years } \end{aligned}$ | 45-64 | $\begin{gathered} \text { A11 ages } \\ 17-64 \\ \text { years } \end{gathered}$ | 17-24 years | 25-44 | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ |
| Total | Percent distribution of blood donations |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{1}$--m-------- | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood <br> Replaced blood <br> Gave to blood bank <br> other donation | $\begin{array}{r} 8.1 \\ 19.8 \\ 35.2 \\ 36.5 \end{array}$ | $\begin{aligned} & 16.7 \\ & 17.2 \\ & 26.7 \\ & 38.7 \end{aligned}$ | $\begin{array}{r} 6.8 \\ 21.0 \\ 37.8 \\ 34.2 \end{array}$ | $\begin{array}{r} 3.6 \\ 19.2 \\ 37.0 \\ 39.8 \end{array}$ | 8.320.336.035.0 | 19.019.725.135.6 | $\begin{array}{r} 6.9 \\ 20.8 \\ 39.2 \\ 32.9 \end{array}$ | $\begin{array}{r} * \\ 19.7 \\ 37.0 \\ 39.5 \end{array}$ | 7.818.233.040.8 | 12.512.629.844.4 | 6.521.932.738.9 | 18.036.940.3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| White |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{1}$------------ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood Replaced blood Gave to blood oth | $\begin{array}{r} 7.6 \\ 20.0 \\ 35.3 \\ 36.8 \end{array}$ | $\begin{aligned} & 14.9 \\ & 17.1 \\ & 27.3 \\ & 40.2 \end{aligned}$ | $\begin{array}{r} 6.7 \\ 21.5 \\ 37.7 \\ 33.9 \end{array}$ | $\begin{array}{r} 3.2 \\ 19.1 \\ 37.2 \\ 40.1 \end{array}$ | 7.520.636.335.2 | $\begin{aligned} & 16.8 \\ & 19.9 \\ & 25.6 \\ & 37.3 \end{aligned}$ | $\begin{array}{r} 6.6 \\ 21.2 \\ 39.3 \\ 32.6 \end{array}$ | $\begin{array}{r} * \\ 19.8 \\ 37.7 \\ 39.8 \end{array}$ | $\begin{array}{r} 7.6 \\ 18.3 \\ 32.7 \\ 41.1 \end{array}$ | $\begin{aligned} & 11.7 \\ & 12.2 \\ & 30.1 \\ & 45.3 \end{aligned}$ | $\begin{array}{r} 6.8 \\ 22.9 \\ 31.6 \\ 38.6 \end{array}$ | 17.337.240.8 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| All other |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{1}$------mon-- | 100.0 | 100.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood-n-----n-n-------n-n | 16.3 | $\begin{array}{r} 38.2 \\ * \\ * \\ * \\ * \end{array}$ | $\begin{array}{r} * \\ \dot{\star} \\ 39.9 \\ 37.8 \end{array}$ | $*$$*$$*$$*$$*$ | 17.916.832.532.2 | $*$$*$$*$$*$ | $*$$*$$*$37.336.3 | $*$$*$$*$$*$$*$ | $*$$*$$*$$*$ | $*$$*$$*$$*$ |  |  |
| Replaced blood---------------- | 16.5 |  |  |  |  |  |  |  |  |  |  |  |
| Gave to blood bank------------ | 33.7 |  |  |  |  |  |  |  |  |  |  |  |
| Other donation--------------- | 32.7 |  |  |  |  |  |  |  |  |  |  |  |

[^16]Table 27. Percent distribution of blood donations by reason for donation, according to sex, age, and family income: United States, based on data collected during 1973
[Data are based on household untervews of the civilian, noninstututıonalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix L. Definitions of terms are given in appendix II]


[^17]${ }^{2}$ Includes donations for unknown reasons.
NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 28. Percent distribution of blood donations by reason for donation, according to sex, age, and education of individual: United States, based on data collected during 1973
[Data are based on househule interviews of the evilian, nominstitutionalized population. The survey design, weneral qualifications, and information on the reliability of the estimates are given in appendix I. Tecinitions of terms are quen in appenalin II]


[^18]NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 29. Percent distribution of blood donations by reason for donation, according to sex, age, and geographic region: United States, based on data collected during 1973
[Data are based on household metervews of the covilian, nonmstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes donations for unknown reasons.
NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 30. Percent distribution of blood donations by reason for donation, according to sex, age, and place of residence: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the cstimates are given in appendix L. Definitions of terms are given in appendix II]

${ }^{1}$ Includes donations for unknown reasons.
NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

Table 31. Percent distribution of blood donations by reason for donation, according to sex, age, labor force status, and occupation: United States, based on data collected during 1973
[Data are based on household interviews of the civilan, noninstitutionalized population. The survey design, general qualifications, and information on the relability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Labor force status, occupation, and reason for donation | Both sexes |  |  |  | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { A11 ages } \\ & 17-64 \\ & \text { years } \end{aligned}$ | 17-24 | $\begin{aligned} & 25-44 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | All ages 17-64 years | $\begin{aligned} & 17-24 \\ & \text { years } \end{aligned}$ | 25-44 years | $45-64$ <br> years | $\begin{aligned} & \text { A11 ages } \\ & 17-64 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 17-24 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 25-44 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ |
| All statuses | Percent distribution of blood donations |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  <br> Replaced blood----------------- <br> Gave to blood bank <br> other donation---------------- <br> In labor force ${ }^{2}$ <br> All reasons ${ }^{1}$ $\qquad$ | $\begin{array}{r} 8.1 \\ 19.8 \\ 35.2 \\ 36.5 \end{array}$ | $\begin{aligned} & 16.7 \\ & 17.2 \\ & 26.7 \\ & 38.7 \end{aligned}$ | $\begin{array}{r} 6.8 \\ 21.0 \\ 37.8 \\ 34.2 \end{array}$ | $\begin{array}{r} 3.6 \\ 19.2 \\ 37.0 \\ 39.8 \end{array}$ | $\begin{array}{r} 8.3 \\ 20.3 \\ 36.0 \\ 35.0 \end{array}$ | $\begin{aligned} & 19.0 \\ & 19.7 \\ & 25.1 \end{aligned}$ | 6.920.839.2 | 19.7 | 7.8 | 12.5 | 6.5 | 18.036.9 |
|  |  |  |  |  |  |  |  |  | 18.2 | 12.6 | 21.9 |  |
|  |  |  |  |  |  |  |  | 37.0 | 33.0 | 29.8 | 32.7 |  |
|  |  |  |  |  |  | 35.6 | 32.9 | 39.5 | 40.8 | 44.4 | 38.9 | $\begin{aligned} & 36.9 \\ & 40.3 \end{aligned}$ |
|  |  |  | $\begin{aligned} & 37.8 \\ & 34.2 \end{aligned}$ |  | 35.0 |  |  |  |  |  |  |  |
|  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Replaced blood---------------- | $\begin{array}{r} 7.3 \\ 19.3 \\ 36.8 \\ 36.4 \end{array}$ | 16.9 | 20.4 | 18.7 | 20.0 | 19.7 | 20.4 | 19.2 | 16.6 | 11.4 | 20.2 | 16.8 |
| Gave to blood bank |  | 28.4 | 39.5 | 37.7 | 37.0 | 25.5 | 40.2 | 37.3 | 36.1 | 34.2 | 35.8 | 38.9 |
| Other donation--- |  | 39.2 | 33.7 | 40.2 | 35.2 | 36.8 | 32.8 | 40.1 | 40.7 | 44.2 | 38.1 | 40.6 |
| White-collar workers: |  |  |  |  |  |  |  |  |  |  |  |  |
| Sold blood---- | 4.8 | 10.016.3 | 3.919.4 | 16. ${ }^{*}$ | 4.318.6 | 19.7 | 4.019.3 | \% | 6.116.7 | \%$*$ | 19* | $\underset{*}{*}$ |
| Replaced blood- | 18.0 |  |  | 16.2 |  |  |  | 16.5 |  |  |  |  |
| Gave to blood bank--------- | 37.9 | 29.1 | 40.5 | 37.642.9 | 37.9 | 22.9 | 40.6 | 38.0 | 37.8 | 34.9 | 40.4 | 36.4 |
| Other donation-------------- | 39.2 | 44.2 | 36.0 |  | 39.3 | 47.7 | 36.0 | 42.8 | 39.2 | 40.9 | 36.1 | 43.2 |
| Blue-collar workers: <br> All reasons ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood--- | 9.9 | 21.0 | 8.5 | * | 10.7 | 22.8 | 9.1 | * | * | * | * | * |
| Replaced blood- | 20.2 | 18.4 | 20.2 | 22.0 | 20.3 | 19.3 | 20.1 | 22.0 | * | * | * | * |
| Gave to blood bank | 37.0 | 27.5 | 41.1 | 36.3 | 37.4 | 27.5 | 41.8 | 35.7 | 32.5 | * | * | * |
| Other donation- | 32.6 | 32.7 | 29.9 | 39.0 | 31.3 | 29.9 | 28.7 | 39.4 | 47.1 | * | * | * |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sold blood------------------- | 100.0 9.1 | 100.0 | 100.0 | 100.0 | $\begin{array}{r} 100.0 \\ * \\ 24.4 \\ 31.3 \\ 35.3 \end{array}$ | $\begin{array}{r} 100.0 \\ \dot{x} \\ * \\ * \\ * \end{array}$ | $\begin{array}{r} 100.0 \\ 27.6 \\ 32.6 \\ 35.0 \end{array}$ | $\begin{array}{r} 100.0 \\ * \\ \vdots \\ \# \\ \vdots \end{array}$ | $\begin{array}{r} 100.0 \\ * \\ * \\ 31.6 \\ 39.8 \end{array}$ | $\begin{array}{r} 100.0 \\ * \\ \vdots \\ \vdots \\ \vdots \end{array}$ | $\begin{array}{r} 100.0 \\ \vdots \\ \vdots \\ \vdots \\ \vdots \end{array}$ | * |
| Replaced blood | 21.4 |  | 26.328.735.8 | $\begin{aligned} & 36.7 \\ & 33.5 \end{aligned}$ |  |  |  |  |  |  |  | $\underset{*}{*}$ |
| Gave to blood bank | 31.4 |  |  |  |  |  |  |  |  |  |  | * |
| Other donation---- | 36.9 | 42.1 |  |  |  |  |  |  |  |  |  | * |
| Not in labor force |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{1}-$---------- | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold bloodReplaced blood Gave to blood bank Other donation | 15.1 | $\begin{aligned} & 24.7 \\ & 18.5 \\ & 18.5 \\ & 36.0 \end{aligned}$ | $\begin{aligned} & 11.9 \\ & 27.1 \\ & 21.2 \\ & 39.2 \end{aligned}$ | $\begin{array}{r} * \\ 23.6 \\ 32.0 \\ 36.6 \end{array}$ | $\begin{aligned} & 22.7 \\ & 26.1 \\ & 19.1 \\ & 30.9 \end{aligned}$ | $*$$*$$*$$*$28.8 |  |  | $\begin{aligned} & 10.8 \\ & 22.2 \\ & 25.2 \\ & 41.3 \end{aligned}$ |  | $\begin{aligned} & 25.7 \\ & 25.7 \\ & 40.4 \end{aligned}$ | $*$$*$32.639.9 |
|  | 23.6 |  |  |  |  |  |  |  |  |  |  |  |
|  | 23.0 |  |  |  |  |  |  |  |  |  |  |  |
|  | 37.6 |  |  |  |  |  |  |  |  |  |  |  |

[^19]Table 32. Percent distribution of blood donations from males by reason for donation
according to age and veteran status: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Veteran status and reason for donation | $\begin{aligned} & \text { Al1 males } \\ & 17-64 \text { years } \end{aligned}$ | 17-24 years | 25-44 years | 45-64 years |
| :---: | :---: | :---: | :---: | :---: |
| All statuses | Percent distribution of blood donations |  |  |  |
|  | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood- | 8.3 | 19.0 | 6.9 | 3.1 |
|  | 20.3 | 19.7 | 20.8 | 19.7 |
|  | 36.0 | 25.1 | 39.2 | 37.0 |
|  | 35.0 | 35.6 | 32.9 | 39.5 |
|  | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood- | 6.1 | 14.4 | 6.5 | 3.2 |
| Replaced blood- | 19.2 | 22.5 | 18.9 | 19.0 |
| Gave to blood bank | 38.8 | 25.9 | 40.9 | 37.6 |
|  | 35.8 | 35.9 | 33.5 | 40.3 |
| Wartime: |  |  |  |  |
| A11 reasons ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 |
|  | 6.4 | * | 7.3 | 19 * |
|  | 18.8 | 22.5 | 17.9 | 19.2 |
|  | 37.4 | 24.4 37.0 | 39.7 34.9 | 37.1 40.7 |
|  | 37.3 | 37.0 | 34.9 | 40.7 |
| Peacetime only: |  |  |  |  |
|  | 100.0 | 100.0 | 100.0 | 100.0 |
|  | * | * | * * | * |
|  | 21.1 | * | 21.7 44.3 | * |
|  Other donation- | 45.4 28.9 | * | 44.3 29.6 | * |
| Nonveteran |  |  |  |  |
| A11 reasons ${ }^{1}$ | 100.0 | 100.0 | 100.0 | 100.0 |
|  | 11.3 | 20.4 | 7.6 | * |
|  | 21.8 | 18.9 | 23.6 | 22.0 |
|  | 32.4 | 24.8 | 36.5 | 35.4 |
|  | 33.9 | 35.5 | 31.9 | 37.4 |

[^20]Table 33. Percent distribution of blood donations by reason for donation, according to sex, age, and selected health indexes: United States, based on data collected during 1973
[Data are hased on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Selected health index and reason for donation | Both sexes |  |  |  | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Al1 ages } \\ & 17-64 \\ & \text { years } \end{aligned}$ | $17-24$ years | $25-44$ <br> years | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & \text { Al1 ages } \\ & 17-64 \\ & \text { years } \end{aligned}$ | 17-24 | $\begin{aligned} & 25-44 \\ & \text { years } \end{aligned}$ | $45-64$ years | $\begin{aligned} & \text { A11 ages } \\ & 17-64 \\ & \text { years } \end{aligned}$ | 17-24 | $\begin{aligned} & 25-44 \\ & \text { years } \end{aligned}$ | $45-64$ years |
| All indexes ${ }^{1}$ | Percent distribution of blood donations |  |  |  |  |  |  |  |  |  |  |  |
| A11 reasons ${ }^{2}-$----------- | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Sold blood <br>  <br>  <br>  <br> Health status | $\begin{array}{r} 8.1 \\ 19.8 \\ 35.2 \\ 36.5 \end{array}$ | $\begin{aligned} & 16.7 \\ & 17.2 \\ & 26.7 \\ & 38.7 \end{aligned}$ | $\begin{array}{r} 6.8 \\ 21.0 \\ 37.8 \\ 34.2 \end{array}$ | $\begin{array}{r} 3.6 \\ 19.2 \\ 37.0 \\ 39.8 \end{array}$ | $\begin{array}{r} 8.3 \\ 20.3 \\ 36.0 \\ 35.0 \end{array}$ | $\begin{aligned} & 19.0 \\ & 19.7 \\ & 25.1 \\ & 35.6 \end{aligned}$ | $\begin{array}{r} 6.9 \\ 20.8 \\ 39.2 \\ 32.9 \end{array}$ | $\begin{array}{r} \star \\ 19.7 \\ 37.0 \\ 39.5 \end{array}$ | $\begin{array}{r} 7.8 \\ 18.2 \\ 33.0 \\ 40.8 \end{array}$ | $\begin{aligned} & 12.5 \\ & 12.6 \\ & 29.8 \\ & 44.4 \end{aligned}$ | $\begin{array}{r} 6.5 \\ 21.9 \\ 32.7 \\ 38.9 \end{array}$ | $\begin{array}{r} \star \\ 18.0 \\ 36.9 \\ 40.3 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Excellent: |  |  |  |  |  |  |  |  |  |  |  |  |
| Sold reasons ${ }^{2}-\cdots-0-0-0-$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100,0 | 100.0 |  |  |  |  |  |
|  | 7.9 18.7 | 15.7 16.8 | 100.0 6.4 19.9 | 4.7 17 | 100.0 8.0 19.3 | 100.0 17.3 | 100.0 6.5 | 100.0 $*$ | 100.0 7.7 | 100.0 | 100.0 | 100.0 |
|  | 18.7 | 16.8 27.4 | 19.9 | 17.7 | 19.3 | 19.0 | 19.9 | 17.9 | 17.0 | * | 19.8 | 17.3 |
| Gave ther donation------------------ | 35.7 | 27.4 | 39.0 | 35.1 | 36.5 | 26.3 | 39.9 | 35.7 | 33.2 | 29.8 | 35.2 | 33.2 |
|  | 37.5 | 40.0 | 34.6 | 42.5 | 36.1 | 37.1 | 33.5 | 42.2 | 42.1 | 46.2 | 39.1 | 43.2 |
| Good: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |  |  |  |  |
| Sold blood--7---------------- | 7.8 | 16.6 | 7.4 | 100.0 | 100.0 | 100.0 19.1 | 100.0 7.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Replaced blood-------------- | 22.1 | 18.9 | 23.6 | 22.0 | 8.0 23.5 | 19.1 24.4 | 22.7 | 24.7 ${ }^{\text {* }}$ | 7.4 19.1 | * |  |  |
| Gave to blood bank--------- | 34.8 | 26.6 | 35.0 | 41.3 | 23.5 35.3 | 24.4 23.4 | 22.7 37.1 | 24.7 40.0 | 19.1 | 30.8 ${ }_{\text {* }}$ | 25.9 29.6 | 44.0 |
| Other donation-------------- | 34.8 | 36.2 | 33.9 | 35.5 | 32.7 | 23.4 31.6 | 37.1 32.3 | 40.0 34.3 | 33.6 39.3 | 30.8 42.2 | 29.6 38.0 | 44.0 37.7 |
| Fair or poor: |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{2}$------------ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |  |  |  |
| Sold blood------------------- | * * | 100. | 100.0 | 100.0 | 100.0 |  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Replaced blood-------------* | 18.3 | * | * | * | * |  | * ${ }_{\text {* }}$ | * $*$ | * * | * * | * $\star$ | * |
| Gave to blood bank--------- | 33.5 | * | 42.4 | 34.4 | 36.3 | * | 46.9 | * | * | * | * | * |
| Other donation- | 33.3 | * | * | 37.1 | 32.2 | * |  | * | * | * | * | * |
| Doctor visits in past year |  |  |  |  |  |  |  |  |  |  |  |  |
| No visits: |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{2}$------------ | 100.0 | -100.0 | 100,0 | 100.0 |  |  |  |  |  |  |  |  |
| Sold blood----------------- | 9.1 | 19.2 | 100.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Replaced blood------------- | 22.5 | 17.1 | 6.8 24.1 | 23.0 | 9.5 23.3 | 23.8 20.2 | 7.0 23.6 | $24^{*}{ }^{\text {a }}$ | 19. ${ }^{\text {* }}$ | * | * | * |
| Gave to blood bank--------- | 32.9 | 27.6 | 35.2 | 23.0 31.6 | 32.1 | 25.2 | 23.6 34.8 | 24.9 30.6 | 19.1 | * | 38 $\begin{array}{r}\text { * } \\ 3\end{array}$ | * |
| Other donation-------------- | 34.8 | 35.0 | 33.6 | 36.9 | 34.4 | 30.3 | 34.4 | 37.4 | 36.6 | * | * | 36.3 |
| 1-4 visits: |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{2}-\ldots-0-0-0-0$ | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |  |  |  |  |  |
| Sold blood-mo---------------- | 8.3 | 17.2 | 100.0 7.1 | 100.0 | 100.0 | 100.0 | 100.0 7.3 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Replaced blood-------------- | 18.8 | 17.3 | 20.2 | 16.8 | 8.2 19.3 | 17.7 | 7.3 19.9 |  | 8.6 | 16.3 |  | 17 * |
| Geve to blood bank---------- | 36.0 | 25.6 | 38.4 | 40.0 | 19.3 37.2 | 20.4 24.3 | 19.9 39.9 | 16.8 | 17.3 |  | 21.3 | 17.0 |
| Other donation------------- | 36.7 | 39.3 | 34.0 | 40.2 | 35.0 | 24.3 37.3 | 39.9 32.6 | 41.3 39.1 | 32.4 41.3 | 28.1 | 31.0 39.1 | 36.7 43.0 |
| 5 or more visits: |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{2}--=-2-0-0$ | 100.0 |  |  |  |  |  |  |  |  |  |  |  |
|  | 100.0 6.1 | 100.0 $*$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  | 19.3 | 16.7 | 19.9 | 21.1 | 5.9 19.4 | * | 19.7 |  | 19.4 | * | 20.4 | * |
| Gave to blood bank--------- | 36.4 | 30.1 | 39.4 | 36.0 | 19.4 39.5 | * | 49.7 | 34.4 | 19.4 | 31, ${ }^{\text {* }}$ | 20.2 28.7 | * |
| Other donation-------------- | 38.2 | 41.3 | 34.6 | 43.1 | 35.2 | 39.2 | 45.5 29.4 | 34.4 45.3 | 31.5 42.9 | 31.5 43.8 | 28.7 43.9 | * |
| $\frac{\text { Hoapital episodes }}{\text { In past year }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| No hospitalizations: |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{2}$-- | 100.0 | 100.0 | 100.0 |  |  |  |  |  |  |  |  |  |
| Sold blood------------------- | 78.7 | 15 | 100.0 6.4 | 100.0 3.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Replaced blood------------- | 19.9 | 17.6 | 21.4 | 3.9 19.3 | 20.6 | 17.1 | 6.3 20.8 |  | 8.1 | 13.0 | 6.5 | * |
| Gave to blood bank--------- | 35.7 | 26.7 | 38.6 | 19.3 | 20.6 36.6 | 20.9 | 20.8 39.9 | 20.0 | 17.8 | 11.4 | 21.9 | 17.7 |
| Other donation--- | 36.3 | + 39.3 | 38.6 33.8 | 36.9 39.4 | 36.6 34.8 | 25.1 | 39.9 | 37.2 | 33.1 | 29.5 | 33.5 | 36.1 |
|  |  |  |  |  |  | 36.2 | 32.7 | 38.7 | 40.9 | 45.2 | 38.0 | 41.0 |
| 1 or more hospitalizations. |  |  |  |  |  |  |  |  |  |  |  |  |
| All reasons ${ }^{2}-2-\ldots-\ldots-\ldots$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |  | 100.0 |  |  |  |  |  |
| Sold blood--------------- | 12.5 |  |  | * | 15.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Replaced blood------------- | 18.3 | * | 20.6 | * | 15.9 | * | 20. $\stackrel{*}{1}$ | * | 21.4 | * | * | * |
| Gave to blood bank--------- | 30.8 | 27.2 | 29.6 | 37.6 | 29.9 | * | 30.7 | * | 32.5 | * | * | * |
| Other donation------------- | 38.3 | 33.6 | 38.1 | 43.9 | 37.1 | * | 35.0 | 49.0 | 40.7 | * | 45.0 | * |

1 Includes unknown heaith status, doctor visits, and hospital episodes.
2 Includes donations for unknown reasons,
${ }^{2}$ Includes donations for unknown reasons.
NOTE: The relative standard errors of percents are found on the chart on page 64 , code P4AN-M. A guide to the use of the
relative standard error charts is on page 62 .

Table 34. Number and percent distribution of blood donations by total number of times donors gave blood, according to sex, reason for donation, and age: United States, based on data collected during 1973
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, gencral qualifications, and information on the reliability of the estimates are given in appendix $I$. Definitions of terms are given in appendix II]

| Reason for donation and age | Both sexes |  |  |  | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total donations in thousands | Times gave blood |  |  | Total donations in thousands | Times gave blood |  |  | Total donations in thousands | Times gave blood |  |  |
|  |  | $\begin{gathered} \text { All } \\ \text { times } \end{gathered}$ | $\stackrel{1}{\text { time }}$ | 2 or more times |  | A11 <br> times | $\stackrel{I}{\text { time }}$ | $\begin{gathered} 2 \text { or } \\ \text { more } \\ \text { times } \end{gathered}$ |  | A11 <br> times | $\stackrel{1}{\text { time }}$ | 2 or more times |
| All reasons ${ }^{1}$ |  | Percent distribution |  |  | 7,538 | Percent distribution |  |  | 2,676 | Percent distribution |  |  |
| All ages 17-64 years-- | 10,215 | 100.0 | 42.5 | 57.5 |  | 100.0 | 40.2 | 59.8 |  | 100.0 | 48.9 | 51.1 |
|  | $\begin{aligned} & 2,182 \\ & 5,523 \\ & 2,510 \end{aligned}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 49.3 \\ & 39.7 \\ & 42.6 \end{aligned}$ | $\begin{aligned} & 50.7 \\ & 60.3 \\ & 57.4 \end{aligned}$ | $\begin{aligned} & 1,419 \\ & 4,316 \\ & 1,803 \end{aligned}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 47.9 \\ & 38.0 \\ & 39.5 \end{aligned}$ | $\begin{aligned} & 52.1 \\ & 62.1 \\ & 60.5 \end{aligned}$ | $\begin{array}{r} 763 \\ 1,207 \\ 707 \end{array}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 51.8 \\ & 46.1 \\ & 50.5 \end{aligned}$ | 48.253.949.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45-64 years---m-n----------- |  |  |  |  |  |  |  |  |  |  |  |  |
| Sold blood |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 832 | 100.0 | 17.1 | 82.9 | 625 | *100.0 | 17.4 | 82.6 | 208 | 100.0 | * | 83.7 |
|  |  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\left.\begin{array}{\|r\|} 21.4 \\ * \\ * \\ * \end{array} \right\rvert\,$ | $\begin{aligned} & 78.6 \\ & 86.8 \\ & 83.3 \end{aligned}$ |  | 100.0 | $*$$*$$*$ | $\begin{gathered} 80.4 \\ 85.3 \\ \star \end{gathered}$ |  | 100.0 | * | 74.791.1$*$ |
| 25-44 years-------------------1-1 | 36537890 |  |  |  | $299$ | 100.0100.0 |  |  | $\underset{79}{*}$ | 100.0100.0 | $\stackrel{*}{*}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Replaced blood |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 2,019 | 100.0 | 56.9 | 43.1 | 1,533 | 100.0 | 56.8 | 43.2 | 486 | 100.0 | 57.0 | 43.0 |
|  | 376 | 100.0 | 63.8 | 36.2 | 280 | 100.0 | 65.7 | 34.3 |  | 100.0 | * | * |
|  | 1,160 | 100.0 | $\begin{aligned} & 57.6 \\ & 49.7 \end{aligned}$ | $\begin{aligned} & 42.4 \\ & 50.3 \end{aligned}$ | 896356 | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ | 57.7 | 42.3 | 264 | 100.0 | 57.2 | 42.4 |
| 45-64 years--------------------- |  |  |  |  |  |  | 47.5 | 52.5 | 127 | 100.0 | 55.1 | * |
| Gave to blood bank |  |  |  |  |  |  |  |  |  |  |  |  |
| A11 ages 17-64 years-- | 3,599 | 100.0 | 45.4 | 54.6 | 2,715 | 100.0 | 42.2 | 57.8 | 884 | 100.0 | 55.5 | 44.5 |
| 17-24 years----n-m---------- | $\begin{array}{r} 583 \\ 2,088 \\ 928 \end{array}$ | 100.0100.0100.0 | $\begin{aligned} & 54.7 \\ & 40.0 \\ & 51.8 \end{aligned}$ | $\begin{aligned} & 45.3 \\ & 60.0 \\ & 48.2 \end{aligned}$ | $\begin{array}{r} 356 \\ 1,692 \\ 667 \end{array}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 52.5 \\ & 37.7 \\ & 48.0 \end{aligned}$ | $\begin{aligned} & 47.5 \\ & 62.3 \\ & 52.0 \end{aligned}$ | $\begin{aligned} & 227 \\ & 395 \\ & 261 \end{aligned}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 58.1 \\ & 49.9 \\ & 61.7 \end{aligned}$ | 41.950.138.3 |
| 25-44 years------------------ |  |  |  |  |  |  |  |  |  |  |  |  |
| 45-64 years----------------- |  |  |  |  |  |  |  |  |  |  |  |  |
| Other donation |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages 17-64 years-- | 3,730 | 100.0 | 37.7 | 62.4 | 2,638 | 100.0 | 34.1 | 65.9 | 1,092 | 100.0 | 46.2 | 53.8 |
| 17-24 years----------------- | $\begin{array}{r} 844 \\ 1,888 \\ 998 \end{array}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 51.3 \\ & 33.8 \\ & 33.4 \end{aligned}$ | $\begin{aligned} & 48.8 \\ & 66.2 \\ & 66.6 \end{aligned}$ | $\begin{array}{r} 505 \\ 1,419 \\ 713 \end{array}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 49.7 \\ & 30.8 \\ & 29.5 \end{aligned}$ | $\begin{aligned} & 50.3 \\ & 69.2 \\ & 70.5 \end{aligned}$ | $\begin{aligned} & 339 \\ & 469 \\ & 285 \end{aligned}$ | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 53.4 \\ & 43.1 \\ & 42.8 \end{aligned}$ | 46.656.956.8 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

${ }^{1}$ Includes donations for unknown reasons.
NOTE; The relative standard errors of estimates are found on the chart on page 63, code A4AM, and the relative standard errors of percents are found on the chart on page 64 , code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

## APPENDIX I

## TECHNICAL NOTES ON METHODS

## Background of This Report

This report is one of a series of statistical reports prepared by the National Center for Health Statistics (NCHS). It is based on information collected in a continuing nationwide sample of households in the Health Interview Survey (HIS).

The Health Interview Survey utilizes a questionnaire which obtains information on personal and demographic characteristics, illnesses, injuries, impairments, chronic conditions, and other health topics. As data relating to each of these various broad topics are tabulated and analyzed, separate reports are issued which cover one or more of the specific topics. The present report is based on data collected in household interviews during 1973.

The population covered by the sample for the Health Interview Survey is the civilian, noninstitutionalized population of the United States living at the time of the interview. The sample does not include members of the Armed Forces or U.S. nationals living in foreign countries. It should also be noted that the estimates shown do not represent a complete measure of any given topic during the specified calendar period since data are not collected in the interview for persons who died during the reference period. For many types of statistics collected in the survey, the reference period covers the 2 weeks prior to the interview week. For such a short period, the contribution by decedents to a total inventory of conditions or services should be very small. However, the contribution by decedents during a long reference period (e.g., 1 year) might be sizable, especially for older persons.

## Statistical Design of the Health Interview Survey

General plan.-The sampling plan of the survey follows a multistage probability design which permits a continuous sampling of the civilian, noninstitutionalized population of the United States. The sample is designed in such a way that the sample of households interviewed each week is representative of the target population and that weekly samples are additive over time. This feature of the design permits both continuous measurement of characteristics of samples and more detailed analysis of less common characteristics and smaller categories of health-related items. The continuous collection has administrative and operational advantages as well as technical assets since it permits fieldwork to be handled with an experienced, stable staff.

The overall sample was designed so that tabulations can be provided for each of the four major geographic regions and for urban and rural sectors of the United States.

The first stage of the sample design consists of drawing a sample of 376 primary sampling units (PSU's) from approximately 1,900 geographically defined PSU's. A PSU consists of a county, a small group of contiguous counties, or a standard metropolitan statistical area. The PSU's collectively cover the 50 States and the District of Columbia.

With no loss in general understanding, the remaining stages can be combined and treated in this discussion as an ultimate stage. Within PSU's, then, ultimate stage units called segments are defined in such a manner that each segment contains an expected four households. Three general types of segments are used.
-Area segments which are defined geographically.
List segments, using 1970 census registers as the frame.

Permit segments, using updated lists of building permits issued in sample PSU's since 1970.

Census address listings were used for all areas of the country where addresses were well defined and could be used to locate housing units. In general the list frame included the larger urban areas of the United States from which about two-thirds of the HIS sample was selected.

The usual HIS sample consists of approximately 12,000 segments containing 51,000 assigned households, of which 9,000 were vacant, demolished, or occupied by persons not in the scope of the survey. The 42,000 eligible occupied households yield a probability sample of about 120,000 persons in 41,000 interviewed households in a year.

Descriptive material on data collection, field procedures, and questionnaire development in the HIS has been published ${ }^{6}$ as well as a detailed description of the sample design ${ }^{7}$ and a report on the estimation procedure and the method used to calculate sampling errors of estimates derived from the survey. ${ }^{8}$

Collection of data.-Field operations for the survey are performed by the U.S. Bureau of the Census under specifications established by the National Center for Health Statistics. In accordance with these specifications the Bureau of the Census participates in survey planning, selects the sample, and conducts the field interviewing as an agent of NCHS. The data are coded, edited, and tabulated by NCHS.

Estimating procedures.-Since the design of the HIS is a complex multistage probability sample, it is necessary to use complex procedures in the derivation of estimates. Four basic operations are involved:

1. Inflation by the reciprocal of the probability of selection.-The probability of selection is the product of the probabilities of selection

NOTE: The list of references follows the text.
from each step of selection in the design (PSU, segment, and household).
2. Nonresponse adjustment.-The estimates are inflated by a multiplication factor which has as its numerator the number of sample households in a given segment and as its denominator the number of households interviewed in that segment.
3. First-stage ratio adjustment.-Sampling theory indicates that the use of auxiliary information which is highly correlated with the variables being estimated improves the reliability of the estimates. To reduce the variability between PSU's within a region, the estimates are ratio adjusted to the 1970 populations within 12 color-residence classes.
4. Poststratification by age-sex-color.-The estimates are ratio adjusted within each of 60 age-sex-color cells to an independent estimate of the population of each cell for the survey period. These independent estimates are prepared by the Bureau of the Census. Both the first-stage and poststratified ratio adjustments take the form of multiplication factors applied to the weight of each elementary unit (person, household, condition, and hospitalization).

The effect of the ratio-estimating process is to make the sample more closely representative of the civilian, noninstitutionalized population by age, sex, color, and residence, which thereby reduces sampling variance.

As noted, each week's sample represents the population living during that week and characteristics of the population. Consolidation of samples over a time period, e.g., a calendar quarter, produces estimates of average characteristics of the U.S. population for the calendar quarter. Similarly, population data for a year are averages of the four quarterly figures.

For prevalence statistics, such as number of persons with speech impairments or number of persons classified by time interval since last physician visit, figures are first calculated for each calendar quarter by averaging estimates for all weeks of interviewing in the quarter. Prevalence data for a year are then obtained by averaging the four quarterly figures.

For other types of statistics-namely those measuring the number of occurrences during a specified time period-such as incidence of acute conditions, number of disability days, or number of visits to a doctor or dentist, a similar computational procedure is used, but the statistics are interpreted differently. For these items, the questionnaire asks for the respondent's experience over the 2 calendar weeks prior to the week of interview. In such instances the estimated quarterly total for the statistic is 6.5 times the average 2 -week estimate produced by the 13 successive samples taken during the period. The annual total is the sum of the four quarters. Thus the experience of persons interviewed during a year-experience which actually occurred for each person in a 2 -calendar-week interval prior to week of interview-is treated as though it measured the total of such experience during the year. Such interpretation leads to no significant bias.

Explanation of hospital recall.-The survey questionnaire uses a 12 -month-recall period for hospitalizations. That is, the respondent is asked to report hospitalizations which occurred during the 12 months prior to the week of interview. Information is also obtained as to the date of entry into the hospital and duration of stay. Analysis of this information, and also the results of special studies, has shown that there is an increase in underreporting of hospitalizations with increase in time interval between the discharge and the interview. Exclusive of the hospital experience of decedents, the net underreporting with a 12 -month recall is in the neighborhood of 10 percent, but underreporting of discharges within 6 months of the week of interview is estimated to be less than 5 percent. For this reason hospital discharge data are based on hospital discharges reported to have occurred within 6 months of the week of interview. Since the interviews were evenly distributed according to weekly probability samples throughout any interviewing year, no seasonal bias was introduced by doubling the 6 -monthrecall data to produce an annual estimate for that year of interviewing. Doubling the 6 -month data in effect imputes to the entire year preceding the interview the rate of hospital discharges actually observed during the 6 months prior to
interview. However, estimates of the number of persons with hospital episodes (as opposed to estimates of the number of hospital discharges) are based on 12 -month recall data since a person's 12 -month experiences cannot be obtained by doubling his most recent 6 -month experience.

## General Qualifications

Nonresponse.-Data were adjusted for nonresponse by a procedure which imputes to persons in a household which was not interviewed the characteristics of persons in households in the same segment which were interviewed. The total noninterview rate was about 3.5 percent-1.4 percent was refusal, and the remainder was primarily due to the failure to find an eligible respondent at home after repeated calls.

The interview process.-The statistics presented in this report are based on replies obtained in interviews with persons in the sample households. Each person 19 years of age and over present at the time of interview was interviewed individually. For children and for adults not present in the home at the time of the interview, the information was obtained from a related household member such as a spouse or the mother of a child.

There are limitations to the accuracy of diagnostic and other information collected in household interviews. For diagnostic information, the household respondent can usually pass on to the interviewer only the information the physician has given to the family. For conditions not medically attended, diagnostic information is often no more than a description of symptoms. However, other facts, such as the number of disability days caused by the condition, can be obtained more accurately from household members than from any other source since only the persons concerned are in a position to report this information.

Rounding of numbers.-The original tabulations on which the data in this report are based show all estimates to the nearest whole unit. All consolidations were made from the original tabulations using the estimates to the nearest unit. In the final published tables, the figures are rounded to the nearest thousand, although these
are not necessarily accurate to that detail. Devised statistics such as rates and percent distributions are computed after the estimates on which these are based have been rounded to the nearest thousand.

Population figures.-Some of the published tables include population figures for specified categories. Except for certain overall totals by age, sex, and color, which are adjusted to independent estimates, these figures are based on the sample of households in the HIS. These are given primarily to provide denominators for rate computation, and for this purpose are more appropriate for use with the accompanying measures of health characteristics than other population data that may be available. With the exception of the overall totals by age, sex, and color mentioned above, the population figures differ from figures (which are derived from different sources) published in reports of the Bureau of the Census. Official population estimates are presented in Bureau of the Census reports in Series P-20, P-25, and P-60.

## Reliability of Estimates

Since the statistics presented in this report are based on a sample, they will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and interviewing personnel and procedures.

As in any survey, the results are also subject to reporting and processing errors and errors due to nonresponse. To the extent possible, these types of errors were kept to a minimum by methods built into survey procedures. ${ }^{9}$ Although it is very difficult to measure the extent of bias in the Health Interview Survey, a number of studies have been conducted to study this problem. The results have been published in several reports. ${ }^{10-13}$

The standard error is primarily a measure of sampling variability, that is, the variation that occurs by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation which arises in the measurement process. However, it does not include

NOTE: The list of references follows the text.
systematic biases which might be in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than $21 / 2$ times as large.

The relative standard error of an estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percentage of the estimate. For this report, asterisks are shown for any cell with more than a 30 -percent relative standard error. Included in this appendix are charts from which the relative standard errors can be determined for estimates shown in the report. In order to derive relative errors which would be applicable to a wide variety of health statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result, the charts provide an estimate of the approximate relative standard error rather than the precise error for any specific aggregate or percentage.

Three classes of statistics for the health survey are identified for purposes of estimating variances.

Narrow range.-This class consists of (1) statistics which estimate a population attribute, e.g., the number of persons in a particular income group, and (2) statistics for which the measure for a single individual during the reference period used in data collection is usually either 0 or 1 or on occasion may take on the value 2 or very rarely 3 .
Medium range.-This class consists of other statistics for which the measure for a single individual during the reference period used in data collection will rarely lie outside the range 0 to 5 .
Wide range.-This class consists of statistics for which the measure for a single individual during the reference period used in data collection can range from 0 to a number in excess of 5 , e.g., the number of days of bed disability.

In addition to classifying variables according to whether they are narrow-, medium-, or wide-range, statistics in the survey are further defined as:

Type A. Statistics on prevalence and incidence for which the period of reference in the questionnaire is 12 months.
Type $B$. Incidence-type statistics for which the period of reference in the questionnaire is 2 weeks.
Type C. Statistics - for which the reference period is 6 months.

Only the charts on sampling error applicable to data contained in this report are presented.

General rules for determining relative sampling errors.-The "guide" on page 62, together with the following rules, will enable the reader to determine approximate relative standard errors from the charts for estimates presented in this report.

Rule 1. Estimates of aggregates: Approximate relative standard errors for estimates of aggregates such as the number of persons with a given characteristic are obtained from appropriate curves on page 63. The number of persons in the total U.S. population or in an age-sex-color class of the total population is adjusted to official Bureau of the Census figures and is not subject to sampling error.
Rule 2. Estimates of percentages in a percent distribution: Relative standard errors for percentages in a percent distribution of a total are obtained from appropriate curves on page 64. For values which do not fall on one of the curves presented in the chart, visual interpolation will provide a satisfactory approximation.
Rule 3. Estimates of rates where the numerator is a subclass of the denominator: This rule applies for prevalence rates or where a unit of the numerator occurs, with few exceptions, only once in the year for any one unit in the denominator. For example, in computing the rate of visual impairments per 1,000 population, the numerator consisting of persons with the impairment is a subclass of the denominator, which in-
cludes all persons in the population. Such rates if converted to rates per 100 may be treated as though they were percentages and the relative standard errors obtained from the chart P4AN-M. Rates per 1,000 , or $\rho$ n any other base, must first be converted to rates per 100; then the percentage chart will provide the relative standard error per 100.
Rule 4. Estimates of rates where the numerator is not a subclass of the denominator: This rule applies where a unit of the numerator often occurs more than once for any one unit in the denominator. For example, in the computation of the number of persons injured per 100 currently employed persons per year, it is possible that a person in the denominator could have sustained more than one of the injuries included in the numerator. Approximate relative standard errors for rates of this kind may be computed as follows:
(a) Where the denominator is the total U.S. population or includes all persons in one or more of the age-sexcolor groups of the total population, the relative error of the rate is equivalent to the relative error of the numerator, which can be obtained directly from the appropriate chart.
(b) In other cases the relative standard error of the numerator and of the denominator can be obtained from the appropriate curve. Square each of these relative errors, add the resulting values, and extract the square root of the sum. This procedure will result in an upper bound on the standard error and often will overstate the error.

Rule 5. Estimates of difference between two statistics (mean, rate, total, etc.): The standard error of a difference is approximately the square root of the sum of the squares of each standard error considered separately. A formula for the standard error of a difference,

$$
d=X_{1}-X_{2}
$$

is

$$
\sigma_{d}=\sqrt{\left(X_{1} V_{x 1}\right)^{2}+\left(X_{2} V_{x 2}\right)^{2}}
$$

where $X_{1}$ is the estimate for class $1, X_{2}$ is the estimate for class 2 , and $V_{\mathrm{x} 1}$ and $V_{\mathrm{x} 2}$ are the relative errors of $X_{1}$ and
$X_{2}$ respectively. This formula will represent the actual standard error quite accurately for the difference between separate and uncorrelated characteristics although it is only a rough approximation in most other cases. The relative standard error of each estimate involved in such a difference can be determined by one of the four rules above, whichever is appropriate.

## Guide to Use of Relative Standard Error Charts

The code shown below identifies the appropriate curve to be used in estimating the relative standard error of the statistic described. The four components of each code describe the statistic as follows:
(1) $\mathrm{A}=$ aggregate, $\mathrm{P}=$ percentage; (2) the number of calendar quarters of data collection; (3) the type of statistic as described on page 61; and (4) the range of the statistic as described on page 60.

| Statistic | Use: |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Rule | Code | On page |  |
| Number of: |  |  |  |  |
| Persons in the U.S. population, or total number in any age-sex-color category $\qquad$ | Not subject to sampling error |  | 63 |  |
| Persons in any other population group ................................... | 1 | A4AN |  |  |
| Persons with blood donations by characteristics ...................... | 1 | A4AN |  | 63 |
| Blood donations by characteristics ........................................ | 1 | A4AM |  | 63 |
| Rates per person: |  |  |  |  |
| Blood donations ................................................................. | 4(b) | Numer: A4AM <br> Denom: A4AN |  | 63 63 |
| Percent distribution of: |  |  |  |  |
| Persons with blood donations by characteristics ..................... | 2 | P4AN-M |  | 64 |
| Blood donations by characteristics ....................................... | 2 | P4AN-M |  | 64 |

Relative standard errors for aggregates based on four quarters of data collection for data of all types and ranges


Example of use of chart: An aggregate of $2,000,000$ (on scale at bottom of chart) for a Narrow range Type A statistic (code: A4AN) has a relative standard error of 3.6 percent, (read from scale at left side of chart), or a standard error of 72,000 (3.6 percent of $2,000,000$ ). For a Wide range Type B statistic (code: A4BW), an aggregate of $6,000,000$ has a relative error of 16.0 percent or a standard error of 960,000 ( 16 percent of $6,000,000$ ).

Relative standard errors for percentages based on four quarters of data collection for type A data, Narrow and Medium range
(Base of percentage shown on curves in millions)


Example of use of chart: An estimate of 20 percent (on scale at bottom of chart) based an an estimate of $10,000,000$ has a relative standard error of 3.2 percent (read from the scale at the left side of the chart), the point at which the curve for a base of $10,000,000$ intersects the vertical line for 20 percent. The standarderror in percentage points is equal to 20 percent X 3.2 percent or 0.64 pexcentage points.

## APPENDIX II

## DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

## Terms Relating to Blood Donors and Types of Blood Donations

Blood donor.-Any person who reported giving or selling his blood to a blood bank, a hospital, the Red Cross, or any other place during the 12 -month period immediately preceding the interview is classified as a blood donor. Reasons for giving blood are as follows:

Sold blood.-A person who received some cash payment as compensation for his blood donation is considered to have sold blood.
Replaced blood.-A person who made a blood donation to help restore the supply of blood used by a relative or friend is classified as having replaced blood.
Gave to blood bank.-A person who donated blood for the assurance of free blood if needed in the future by some family member is classified as contributing to a blood bank. This type of "blood assurance" program usually requires regular blood contributions and offers coverage of family members for some specified future period of time.
Other donation.-All reasons for donating blood that are not covered in the three categories specified above are considered as "other donation." Classified in this category are persons who gave blood for no tangible gain or reward, such as receiving blood in the future, replacing blood used by a particular person, or receiving cash. Someone receiving some other form of compensation, such as some type of pay in kind or a day off from work, would also be classified to this category.

## Demographic Terms

Age.-The age recorded for each person is the age at last birthday. Age is recorded in smgle years and grouped in a variety of distributions depending on the purpose of the table.

Color.-The population is divided into two color groups, "white" and "all other." "All other" includes Black, American Indian, Chinese, Japanese, and any other race. Mexican persons are included with "white" unless definitely known to be Indian or of another race.

Income of family or of unrelated individuals. - Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family (or by an unrelated individual) in the 12 -month period preceding the week of interview. Income from all sources is included, e.g., wages, salaries, rents from property, pensions, and help from relatives.

Education.-The categories of education status show the years of school completed. Only years completed in regular schools, where persons are given a formal education, are included. A "regular" school is one which advances a person toward an elementary or high school diploma or a college, university, or professional school degree. Thus education in vocational, trade, or business schools outside the regular
school system is not counted in determining the highest grade of school completed.

Education of individual.-Each person aged 17 years or older is classified by education in terms of the highest grade of school completed.

Geographic region.-For the purpose of classifying the population by geographic area, the States are grouped into four regions. These regions, which correspond to those used by the U.S. Bureau of the Census, are shown in figure I .

| Region | States Included |
| :---: | :---: |
| Northeast . | Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania |
| North Central | Michigan, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, Nebraska |
| South | Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Texas, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma |
| West | Montana, Idaho, Wyoming, Colorado, Ncw Mexico, Arizona, Utah, Nevada, Washington, Mlaska, Oregon, California, Hawaii |

Figure I

Place of residence.-The place of residence of a member of the civilian, noninstitutionalized population is classified as inside a standard met-
ropolitan statistical area (SMSA) or outside an SMSA and either farm or nonfarm.

Standard metropolitan statistical areas.-The definitions and titles of SMSA's are established by the U.S. Office of Management and Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas.

The definition of an individual SMSA involves two considerations: first, a city or cities of specified population which constitute the central city and identify the county in which it is located as the central county; second, economic and social relationships with contiguous counties (except in New England) which are metropolitan in character so that the periphery of the specific metropolitan area may be determined. SMSA's are not limited by State boundaries. In New England SMSA's consist of towns and cities, rather than counties. The metropolitan population in this report is based on SMSA's as defined in the 1970 census and does not include any subsequent additions or changes.

Central cities.-Each SMSA must include at least one central city. The complete title of an SMSA identifies the central city or cities. If only one central city is designated, then it must have 50,000 inhabitants or more. The area title may include, in addition to the largest city, up to two city names on the basis and in the order of the following criteria: (1) the additional city has at least 250,000 inhabitants or (2) the additional city has a population of one-third or more of that of the largest city and a minimum population of 25,000 . An exception occurs where two cities have contiguous boundaries and constitute, for economic and social purposes, a single community of at least 50,000 , the smaller of which must have a population of at least 15,000.

Farm and nonfarm residence.--The population residing outside SMSA's is subdivided into the farm population, which comprises all non-SMSA residents living on farms, and the nonfarm population, which comprises the remaining outside SMSA population. The farm population includes persons living on places of 10 acres or more from which sales of farm products amounted to
$\$ 50$ or more during the previous 12 months or on places of less than 10 acres from which sales of farm products amounted to $\$ 250$ or more during the preceding 12 months. Other persons living outside an SMSA were classified as nonfarm if their household paid rent for the house but their rent did not include any land used for farming.

Sales of farm products refer to the gross receipts from the sale of field crops, vegetables, fruits, nuts, livestock and livestock products (milk, wool, etc.), poultry and poultry products, and nursery and forest products produced on the place and sold at any time during the preceding 12 months.

Occupation.-A person's occupation may be defined as his principal job or business. For the purposes of this survey, the principal job or business is defined in one of the following ways. If the person worked during the 2 -week reference period of the interview, or had a job or business, the question concerning his occupation (or what kind of work he was doing) applies to his job during that period. If the respondent held more than one job, the question is directed to the one at which he spent the most time. For an unemployed person, this question refers to the last full-time civilian job he had. A person who has a job to which he has not yet reported, and has never had a previous job or business, is classified as a "'new worker."

The occupation classes presented in this report and their code numbers as found in the Classified Index of Occupations and Industries of the U.S. Bureau of the Census are shown in figure II.

In labor force.-All persons 17 years and older who worked at or had a job or business or were looking for work or on layoff from work during the 2 -week period prior to the week of interview are in the labor force. The labor force consists of persons currently employed and those not employed as defined below.

Currently employed.-Persons 17 years of age and over who reported that at any time during the 2 -week period covered by the interview they either worked at or had a job or business are currently employed. Current employment in-

| Occupation Classification | Census Code |
| :---: | :---: |
| White-collar workers |  |
| Professional, technical, and kindred workers. | 001-195, N |
| Managers and administrators, except farm .... | 201-245 |
| Sales workers | 260-280 |
| Clerical and kindred workers | 301-395, P, Q |
| Blue-collar workers |  |
| Craftsmen and kindred workers. | 401-580, R, S |
| Operatives, expect transport ..... | 601-696, T |
| Transport equipment operatives ................. | 701-715, U |
| Laborers, except farm ............................... | 740-785, V |
| Farm and service workers |  |
| Farmers and farm managers | 801-802, W |
| Farm laborers and farm foremen ................ | 821-824 |
| Service workers, except private household .... | 901-965, X, Y |
| Private household workers ........................ | 980-984, Z |
| Unknown ............................................... | 990,995 |

## Figure II

cludes paid work as an employee of someone else; self-employment in business, farming, or professional practice; and unpaid work in a family business or farm. Persons who were temporarily absent from a job or business because of a temporary illness, vacation, strike, or bad weather are considered as currently employed if they expected to work as soon as the particular event causing the absence no longer existed.
Free-lance workers are considered currently employed if they had a definite arrangement with one employer or more to work for pay according to a weekly or monthly schedule, either full time or part time.

Excluded from the currently employed population are persons who have no definite employment schedule but work only when their services are needed. Also excluded from the currently employed population are (1) persons receiving revenue from an enterprise but not participating in its operation, (2) persons doing housework or charity work for which they receive no pay, (3) seasonal workers during the portion of the year they were not working, and (4) persons who were not working, even though having a job or business, but were on layoff or looking for work.

The number of currently employed persons estimated from the Health Interview Survey (HIS) 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 they include three primary conceptual differences, namely: (1) HIS estimates are for persons 17 years of age and over; CPS estimates are for persons 16 years of age and over. (2) HIS uses a 2 -week reference period, while CPS uses a 1 -week reference period. (3) HIS is a continuing survey with separate samples taken weekly; CPS is a monthly sample taken for the survey week which includes the 12 th of the month.

Currently unemployed.-Persons 17 years and over who during the 2 -week period prior to interview did not work or had no job or business but were looking for work and those who had a job but were on layoff or looking for work are considered currently unemployed.

Not in labor force.-Persons not in the labor force are all persons under 17 years of age and other persons who did not at any time during the 2 -week period covered by the interview have a job or business, were not looking for work, and were not on layoff from a job. In general, persons excluded from the labor force are children under 17, retired persons, physically handicapped persons unable to work, and housewives or charity workers who receive no pay.

Veteran status.-All males 17 years of age and older are classified by their veteran status.

Veteran.-A veteran is defined as a person who has served on full-time active duty in the U.S. Armed Forces. Service in the Armed Forces includes the U.S. Army, Navy, Air Force, Marine Corps, and Coast Guard and any National Guard unit which was activated as part of the regular Armed Forces. Excluded are persons working in civilian positions for the Armed Forces, serving in the merchant marine, or serving in a National Guard unit not activated as part of the regular Armed Forces.

Wartime service.-Veterans whose service was all or partly during the Vietnam Era, the Korean War, World War II, or World War $]$ are classified as having wartime service.

Peacetime service.-Veterans whose service in the U.S. Armed Forces was not wartime service, as defined above, are classified as having peacetime service.
Nonveteran.-A nonveteran is defined as a person who has never served on full-time active duty in the U.S. Armed Forces.

## Terms Relating to Health

Health status.-The respondent's own evaluation of the health of each member of the family for whom he is responding compared to other persons of the same age is that person's health status. The specific categories from which the respondent may choose are excellent, good, fair, and poor.

Physician visit.-A physician visit is defined as consultation with a physician, in person or by telephone, for examination, diagnosis, treatment, or advice. The visit is considered to be a physician visit if the service is provided directly by the physician or by a.nurse or other person acting under a physician's supervision. For the purpose of this definition "physician" includes doctors of medicine and osteopathic physicians. The term "doctor" is used in the interview rather than "physician" because of popular usage. However, the concept toward which all instructions are directed is that which is described here.

Physician visits for services provided on a mass basis are not included in the tabulations. A service received on a mass basis is defined as any service involving only a single test (e.g., test for diabetes) or a single procedure (e.g., smallpox vaccination) when this single service was administered identically to all persons who were at the place for this purpose. Hence obtaining a chest X-ray in a tuberculosis chest X-ray trailer is not included as a physician visit. However, a special chest X-ray given in a physician's office or in an outpatient clinic is considered a physician visit.

Physician visits to hospital inpatients are not included.

If a physician is called to a house to see more than one person, the call is considered a separate physician visit for each person about whom the physician was consulted.

A physician visit is associated with the person about whom the advice was sought, even if
that person did not actually see or consult the physician. For example, if a mother consults a physician about one of her children, the physician visit is ascribed to the child.

Interval since last physician visit.-The interval since the last physician visit is the length of time prior to the week of interview since a physician was last consulted in person or by telephone for treatment or advice of any type whatever. A physician visit to a hospital inpatient
may be counted as the last time a physician was seen.

Hospital episode.-A hospital episode is any continuous period of stay of 1 night or more in a hospital as an inpatient except the period of stay of a well newborn infant. A hospital episode is recorded for a family member whenever any part of his hospital stay is included in the 12 -month period prior to the interview week.

## APPENDIX III

## BLOOD DONOR QUESTIONS AND FLASHCARD, 1973



## CARD B

1. SOLD BLOOD.
2. REPLACED BLOOD USED BY A RELATIVE OR FRIEND.
3. UNPAID DONATION TO A BLOOD BANK TO ASSURE FREE BLOOD FOR THIS FAMILY IN THE FUTURE.
4. OTHER UNPAID BLOOD DONATION WHICH WAS NOT FOR REPLACEMENT AND DID NOT ASSURE FREE BLOOD FOR THIS FAMILY IN THE FUTURE.
5. SOME OTHER REASON.

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[^0]:    ${ }^{\text {a }}$ In this report, terms such as "similar" and "the same" mean that no statistical significance exists between the statistics being compared. Terms relating to differences (i.e., "greater," "less," etc.) indicate that differences are statistically significant. The t-test with a critical value of 1.96 ( 0.05 level of significance) was used to test all comparisons which are discussed. Lack of comment regarding the difference between any two statistics does not mean the difference was tested and found to be not significant.

[^1]:    ${ }^{1}$ Includes unknown health status, doctor visits, and hospital episodes.

[^2]:    ${ }^{1}$ Includes unknown family income or education.
    ${ }^{2}$ Includes unknown occupation.

[^3]:    ${ }^{1}$ Includes donations for unknown reasons.

[^4]:    ${ }^{1}$ Includes donations for unknown reasons.

[^5]:    ${ }^{1}$ Includes donations for unknown reasons.

[^6]:    ${ }^{1}$ Includes donations for unknown reasons.

[^7]:    ${ }^{1}$ Includes donations for unknown reasons.

[^8]:    ${ }^{1}$ Includes unknown blood donor status.
    ${ }^{2}$ Includes unknown education.
    NOTE: The relative standard errors of estimates are found on the chart on page 63, code A4AN, and the relative standard errors of percents are found on the chart on page 64 , code $\mathrm{P} 4 \mathrm{AN}-\mathrm{M}$. A guide to the use of the relative standard error charts is on page 62 .

[^9]:    ${ }^{1}$ Includes unknown family income.

[^10]:    ${ }^{1}$ Includes unknown family income.

[^11]:    ${ }^{1}$ Includes unknown education.

[^12]:    ${ }^{1}$ Includes unknown occupation.
    NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

[^13]:    ${ }^{2}$ Includes unknown occupation.
    NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard error charts is on page 62.

[^14]:    ${ }^{1}$ Includes unknown health status, doctor visits, and hospital episodes.

[^15]:    ${ }^{1}$ Includes unknown health status, doctor visits, and hospital episodes.
    NOTE: The relative standard errors of estimates of blood donors, code A4AN, the relative standard errors of estimates of blood donations, code A4AM, and the relative standard errors of estimates of donations per donor, code A4AM/A4AN, are found on the chart on page 63. A guide to the use of the relative standard error charts is on page 62 .

[^16]:    ${ }^{1}$ Includes donations for unknown reasons.
    NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

[^17]:    ${ }^{1}$ Includes unknown family income.

[^18]:    ${ }_{2}^{1}$ IncIudes unknown education.
    ${ }^{2}$ Includes donations for unknown reasons.

[^19]:    ${ }_{2}^{1}$ Includes donations for unknown reasons.
    ${ }^{2}$ Includes unknown occupation,
    NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62.

[^20]:    ${ }^{1}$ Includes donations for unknown reasons.
    NOTE: The relative standard errors of percents are found on the chart on page 64, code P4AN-M. A guide to the use of the relative standard error charts is on page 62 .

