

# **Weight And Height Of Adults**

## **18-74 Years Of Age:**

**United States, 1971-74**

Weight and height measurements of white and black adults 18-74 years of age in the United States, 1971-74, are presented and discussed by age, sex, and race and are also compared with measurements of adults of similar ages in the United States, 1960-62.

DHEW Publication No. (PHS) 79-1659

---

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
Public Health Service  
Office of Health Research, Statistics, and Technology  
National Center for Health Statistics  
Hyattsville, Md.                      May 1979

# NATIONAL CENTER FOR HEALTH STATISTICS

DOROTHY P. RICE, *Director*

ROBERT A. ISRAEL, *Deputy Director*  
JACOB J. FELDMAN, Ph.D., *Associate Director for Analysis*  
GAIL F. FISHER, Ph.D., *Associate Director for the Cooperative Health Statistics System*  
ROBERT A. ISRAEL, *Acting Associate Director for Data Systems*  
JAMES T. BAIRD, JR., Ph.D., *Associate Director for International Statistics*  
ROBERT C. HUBER, *Associate Director for Management*  
MONROE G. SIRKEN, Ph.D., *Associate Director for Mathematical Statistics*  
PETER L. HURLEY, *Associate Director for Operations*  
JAMES M. ROBEY, Ph.D., *Associate Director for Program Development*  
PAUL E. LEAVERTON, Ph.D., *Associate Director for Research*  
ALICE HAYWOOD, *Information Officer*

## DIVISION OF HEALTH EXAMINATION STATISTICS

ROBERT S. MURPHY, *Director*  
SIDNEY ABRAHAM, *Chief, Nutrition Statistics Branch*  
KURT R. MAURER, *Acting Chief, Survey Planning and Development Branch*

## DIVISION OF OPERATIONS

HENRY MILLER, *Chief, Health Examination Field Operations Branch*

### COOPERATION OF THE U.S. BUREAU OF THE CENSUS

In accordance with specifications established by the National Center for Health Statistics, the Bureau of the Census, under a contractual agreement, participated in the design and selection of the sample, and carried out the first stage of the field interviewing and certain parts of the statistical processing.

Vital and Health Statistics-Series 11-No. 211

---

DHEW Publication No. (PHS) 79-1659  
*Library of Congress Catalog Card Number 78-12621*



**Library of Congress Cataloging in Publication Data**

Abraham, Sidney.

Weight and height of adults 18-74 years of age, United States, 1971-74.

(Vital and health statistics: Series 11, Data from the National Health Survey; no. 211)  
(DHEW publication; (PHS) 79-1659)

Includes bibliographical references.

I. Anthropometry—United States. 2. Health surveys—United States. I. Johnson, Clifford L., joint author. II. Najjar, Matthew F., joint author. III. Title. IV. Series: United States. National Center for Health Statistics. Vital and health statistics: Series 11, Data from the National Health Survey, Data from the health examination survey: no. 211. V. United States. Dept. of Health, Education, and Welfare. DHEW publication; (PHS) 79-1659.

RA407.3.A347

no. 211

[GN58.U5]

312'.0973s[573.6]

ISBN 0-8406-0142-5

78-12621

# CONTENTS

Introduction . . . . .	1
Methods . . . . .	2
Height . . . . .	2
Weight . . . . .	2
Findings . . . . .	2
Weight . . . . .	2
Height . . . . .	5
Comparison With the Health Examination Survey (1960-62) . . . . .	6
Summary . . . . .	10
List of Detailed Tables . . . . .	12
Appendixes . . . . .	44
I. Statistical Notes . . . . .	45
II. Demographic Terms . . . . .	49

## LIST OF FIGURES

1. Mean weight in pounds of adults 18-74 years, by age and sex: United States, 1971-74 . . . . .	3
2. Selected estimated percentiles of weight distribution in pounds of adults 18-74 years, by age and sex: United States, 1971-74 . . . . .	3
3. Mean weight in pounds of adults 18-74 years, by age, sex, and race: United States, 1971-74 . . . . .	4
4. Selected estimated percentiles of weight distribution in pounds of men and women 18-74 years, by age and race: United States, 1971-74 . . . . .	4
5. Mean height in inches of adults 18-74 years, by age and sex: United States, 1971-74 . . . . .	5
6. Selected estimated percentiles of height distribution in inches of adults 18-74 years, by age and sex: United States, 1971-74 . . . . .	6
7. Mean height in inches of adults 18-74 years, by age, sex, and race: United States, 1971-74 . . . . .	6
8. Selected estimated percentiles of height distribution in inches of men and women 18-74 years, by age and race: United States, 1971-74 . . . . .	7
9. Mean weight in pounds of adults 18-74 years by age and sex in HES (1960-62) and HANES (1971-74): United States . . . . .	7
10. Mean height in inches of adults 18-74 years, by age and sex in HES (1960-62) and HANES (1971-74): United States . . . . .	8
11. Relative change in weight with age over the mean for men and women 18-74 years in HES (1960-62) and HANES (1971-74): United States . . . . .	9
12. Relative change in height with age over the mean for men and women 18-74 years in HES (1960-62) and HANES (1971-74): United States . . . . .	10

### SYMBOLS

Data not available-----	---
Category not applicable-----	...
Quantity zero-----	-
Quantity more than 0 but less than 0.05----	0.0
Figure does not meet standards of reliability or precision-----	*

# WEIGHT AND HEIGHT OF ADULTS 18-74 YEARS OF AGE

Sidney Abraham, Clifford L. Johnson, and Matthew F. Najjar,  
Division of Health Examination Statistics

## INTRODUCTION

The height and weight measurements in this report were obtained as a part of the Health and Nutrition Examination Survey (HANES). HANES is a program in which measures of nutritional status are collected for a scientifically designed sample representative of the civilian noninstitutionalized population of the United States in a broad range of ages, 1-74 years. The survey was also designed to obtain some information on the general health status of the entire age group as well as more detailed health assessment data on those 25 through 74 years of age. A detailed description of the specific content and plan of operation, including sample design, has been published.<sup>1</sup>

In previous Health Examination Survey programs, the U.S. Bureau of the Census cooperated in the sample design and in the initial visits and interviewing at selected eligible households in the 65 primary sampling units (PSU's) throughout the United States. Additional household visiting, interviewing, history taking, and explaining the examination portion of the program were performed by members of the field teams of the mobile examination center. The selected

sample persons for whom an appointment could be made were brought into the specially constructed mobile examination centers which were moved into a central location in each of the PSU's. The teams which traveled to the various survey locations throughout the country included professional and paraprofessional medical and dental examiners along with technicians, interviewers, and other staff.

The probability sample design used in the study provided for a higher sampling ratio of the poor, preschool children, women of childbearing ages, and the elderly than of others in the civilian noninstitutionalized population.

Field data collection operations for the first HANES survey were started in April 1971 and completed in June 1974. Of the 28,043 persons aged 1-74 years who were selected in the national probability sample to represent the 194 million persons in that age group in the civilian noninstitutionalized population, 20,749, or 74 percent, were examined. When adjustments are made for the differential sampling ratios used to ensure oversampling among the poor, preschool children, women of childbearing age, and the elderly, the effective response rate is 75 percent. Among those 18-74 years of age at the time of interview for whom height and weight determinations were made, there were 13,645 examined out of the probability sample of 19,572 selected to represent the 128 million persons of those ages in the population. This is an unadjusted response rate of 70 percent and an effective adjusted response rate of 70 percent.

<sup>1</sup>National Center for Health Statistics: Plan and operation of the Health and Nutrition Examination Survey, United States, 1971-1973. *Vital and Health Statistics*. DHEW Pub. No. (HSM) 73-1310. Series 1, Nos. 10a and 10b. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Feb. 1973.

In this report, weight and height data are analyzed and discussed by age, sex, and race. The techniques of measurement are discussed. The present findings are compared with the Health Examination Survey (HES) of 1960-62.<sup>2</sup> Analysis of weight and height studies with variables other than age, race, and sex will be presented in future reports. Consideration of body composition and configuration, of obesity, and of nutritional status will also be subjects of future reports.

## METHODS

The examinees changed from their street clothing into disposable paper examination uniforms and foam rubber slippers designed to facilitate and standardize various elements of the examination. Body measurements were made at various times throughout the day at each examination center and in different seasons of the year; thus body measurements were not standardized with regard to diurnal and seasonal variations. Weights vary between winter and summer and may differ depending upon recency of food and water intake.

### Height

For persons aged 18-74 years, height was measured with the examinee wearing disposable foam rubber slippers, standing with feet together, back and heels against the upright bar of the height scale, head approximately in the Frankfort horizontal plane ("look straight ahead"), and erect ("stand up tall" or "stand up real straight" with some assistance and demonstration when necessary). However, upward pressure was not exerted by the examiner on the subject's mastoid processes to purposefully "stretch everyone in a standard manner," as is recommended by some.

---

<sup>2</sup>National Center for Health Statistics: Weight, height, and selected body dimensions of adults, United States, 1960-1962, by H. W. Stoudt et al. *Vital and Health Statistics*. Series 11-No. 8. DHEW Pub. No. (HRA) 76-1074. Health Resources Administration. Washington. U.S. Government Printing Office, June 1965.

The equipment consisted of a level platform to which was attached a vertical bar with a steel tape. Attached to the vertical bar perpendicularly was a horizontal bar which was brought down snugly on the examinee's head. Attached to another bar in the same plane as the horizontal measuring bar was a Polaroid camera which recorded the subject's identification number next to the pointer on the scale giving a precise reading. The camera not only gave a permanent record minimizing observer and recording error but, by sliding up and down with a horizontal bar and always being in the same plane, also completely eliminated parallax. That is, if the pointer had been in the space in front of the scale, it would have been read too high if the observer had looked up at the scale from below or too low if read down from above.

### Weight

A Toledo self-balancing scale that mechanically printed the weight to one-quarter of a pound directly onto the permanent record was used. This direct printing was used to minimize observer and recording errors. The scale was calibrated with a set of known weights, and any necessary fine adjustments were made at the beginning of each new trailer location, i.e., approximately every month. The recorded weight was later transferred to a punched card to the nearest 0.25 pound (lb.). The total weights of all clothing worn ranged from 0.20 to 0.62 lb.; this was not deducted from weights presented in this report. (The weights, then, are 0.20 to 0.62 lb. above nude weight recorded to the nearest 0.25 lb.). The examination clothing used was the same throughout the year so there is no seasonal variation in the weight of clothing.

## FINDINGS

### Weight

*Age and sex.*—The estimated numbers and percent distributions of men and women aged 18-74 years in each of the weight groups are presented in tables 1-3. Table 4 summarizes these distributions in terms of basic statistics for examined persons by age for men and women.

Table 4 shows that the mean weight of men aged 18-74 years was 172 pounds. Table 4 and figure 1 show that the mean weight of men increased from 165 pounds in age group 18-24 years to 178 pounds in age group 35-44 years. Thereafter it decreased with age to 175 pounds in age group 45-54 years, 171 pounds at 55-64 years, and a low of 164 pounds in the oldest age group measured, 65-74 years.

The mean weight of women was 143 pounds, 29 pounds less than that for men (table 4). Table 4 and figure 1 show that the mean weight increased with age from a low of 132 pounds at 18-24 years to a high of 149 pounds at ages 45-64 years and then declined to 146 pounds in the oldest age group.

The age patterns of men and women described previously for mean weight were also generally evident when the percentiles at both the upper and lower ends of the distribution were examined (table 4, figure 2).

*Race, sex, and age.*—Estimated numbers and percent distributions of white and black adults in each of the age groups according to their weights are shown in tables 5-10. Table 11 and figure 3 summarize these distributions. The pattern in mean weight with age found for adult men in the United States was also found for

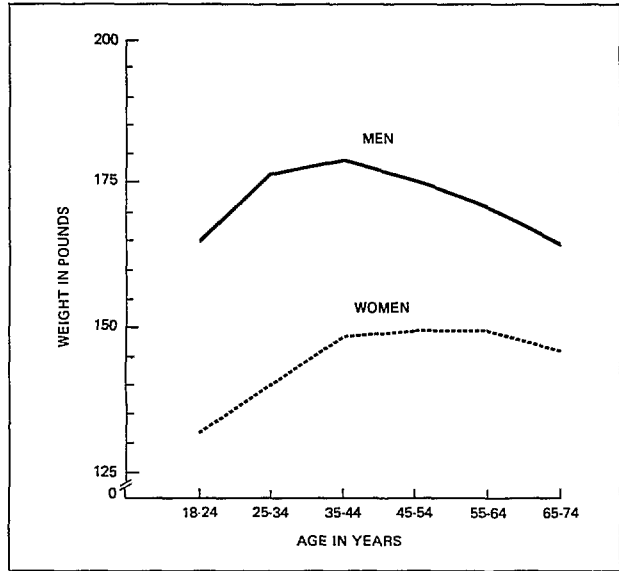


Figure 1. Mean weight in pounds of adults 18-74 years, by age and sex: United States, 1971-74

black and for white males separately. Mean weight increased among white men from a low of 165 pounds at 18-24 years to a high of 178 pounds at 35-44 years. Among black males, mean weight increased consistently with age from 166 pounds at age 18-24 to 182 pounds at age 35-44 years. The mean weights of white men

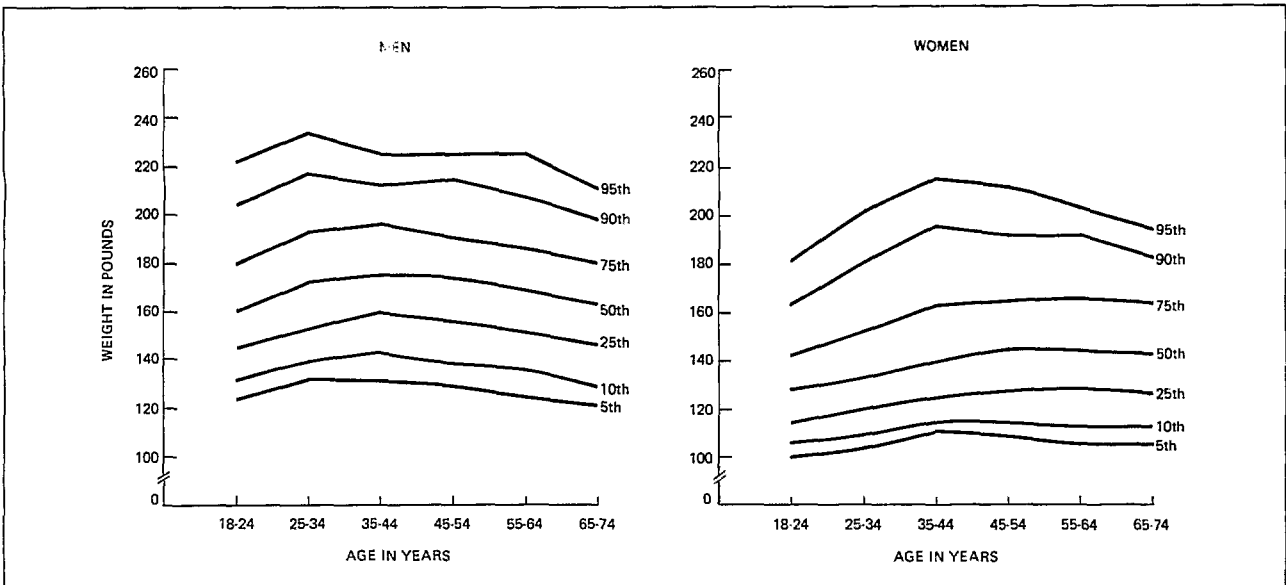


Figure 2. Selected estimated percentiles of weight distribution in pounds of adults 18-74 years, by age and sex: United States, 1971-74



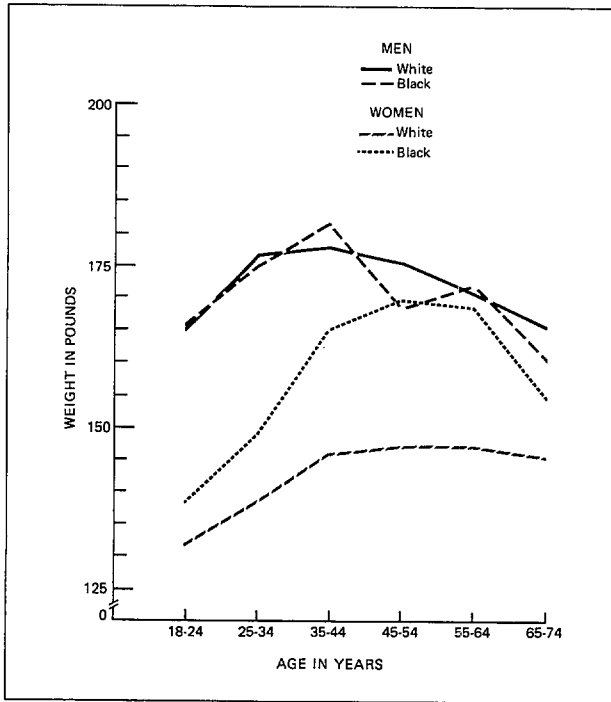


Figure 3. Mean weight in pounds of adults 18-74 years, by age, sex, and race: United States, 1971-1974

decreased consistently with age from 45-54 years of age on. A similar pattern was not evident for black men. There was little consistent difference among the various age groups between the mean weights of black and white men.

Data on weight by age for black and white women tend to parallel with those shown for men, with the exception that the increase in mean weight of white women continued up to the age group 45-54 years and then declined (table 11). The means for black women showed a plateau effect and a slight decrease, however, at each age black women had larger mean weights than white women, with the differences averaging about 20 pounds for the age groups 35-64 years.

The interracial differences in weight for both men and women were generally greater, particularly for women, at the upper end of the distribution than at the lower end (figure 4). The weight distribution for black men had more variability than that for white men. The standard deviation of the weight distribution is greater at each age group for black men than for white men, as is the distance between the 95th

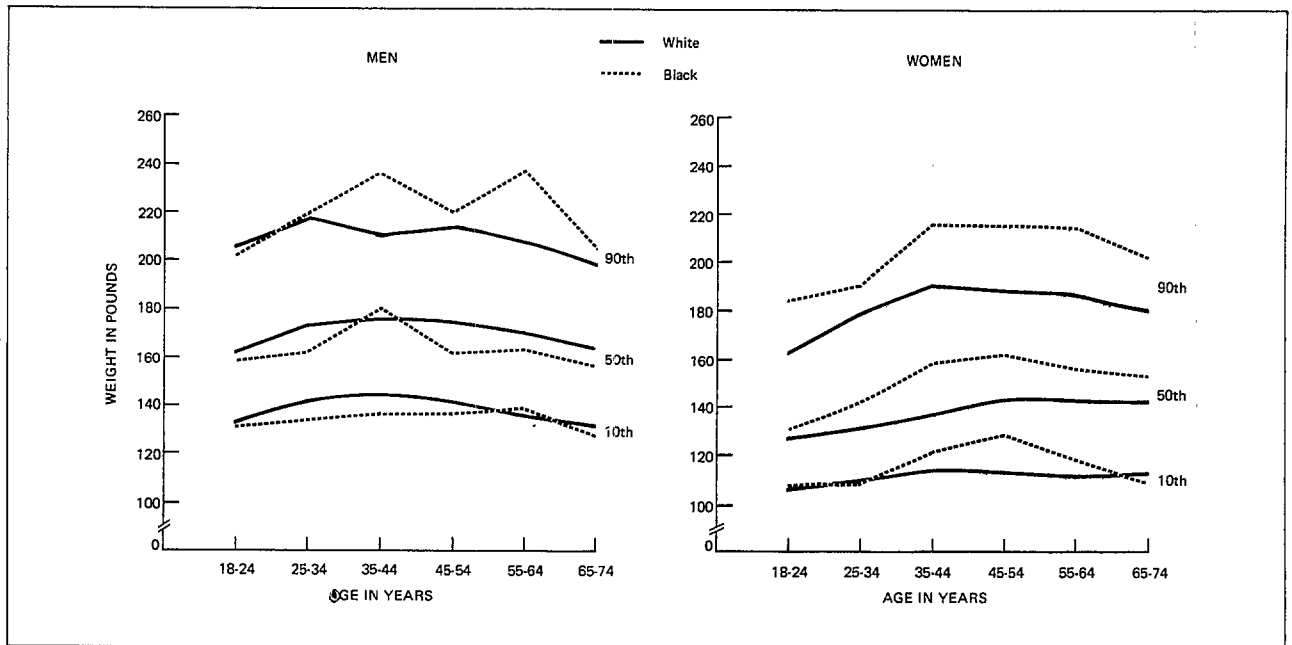


Figure 4. Selected estimated percentiles of weight distribution in pounds of men and women 18-74 years, by age and race: United States, 1971-74

and 5th percentiles, which represents about 90 percent of the men in the population. This pattern is also observed for black women when compared with white women.

## Height

*Age and sex.*—The estimated numbers and percent distributions of men and women aged 18-74 years by height are presented in tables 12-14. Table 15 and figure 5 summarize these distributions in terms of basic statistics for examined persons by age for men and women.

The mean height for men aged 18-74 years was 69.0 inches. The highest mean height, 69.7 inches, was found in the youngest age group, 18-24 years, and is 2.4 inches taller than the mean height in age group 65-74 years, 67.3 inches. This corresponds with a small decrease in height with increasing age, which averages less than one-half inch per decade of age over the range 18-74 years.

For women the mean height was 63.6 inches, 5.4 inches less than the mean height for men. The mean height for women was highest, 64.3 inches, in the youngest age group, as it was for men. The mean height decreased slightly to 64.1 inches at 25-34 years, remained constant at 64.1 inches at 35-44 years, and then declined to 63.6 inches at 45-54 years, 62.8 inches at 55-64 years, and 62.3 inches in the oldest age group, 65 years and over. The difference between the youngest and oldest age group is 2.0 inches. The decrease in height with age averages less than one-half inch per decade over the age range of 18-74 years (figure 5).

The age patterns of men and women described previously for the mean height were also generally evident when the percentiles at the upper and lower ends of the distribution were examined (figure 6).

*Race, sex, and age.*—The estimated population of white and black adults by height is presented in tables 16-19 and equivalently as percent distributions in tables 20 and 21. Mean heights are shown by age for white and black men and women in table 22 and figure 7. In each of the five age groups in the age range 18-64 years, white men were taller than black men. The average difference between heights of

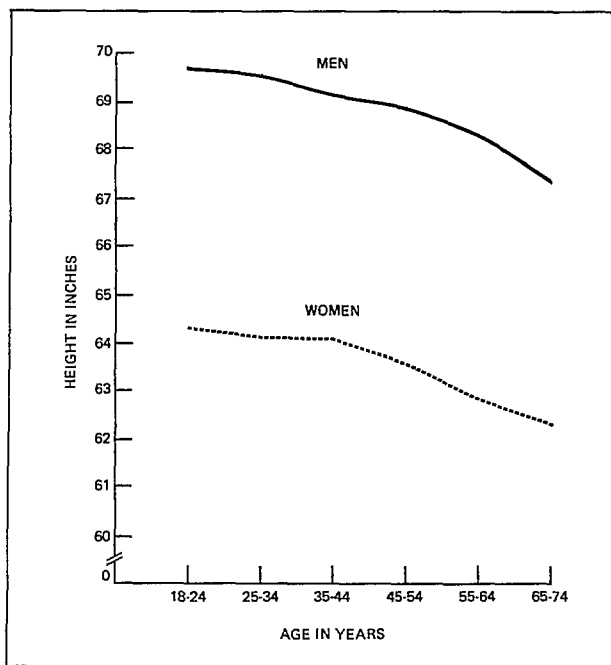


Figure 5. Mean height in inches of adults 18-74 years, by age and sex: United States, 1971-74

white and black men in these age groups was about one-half inch, which difference could be attributed to sampling variability. At age group 65-74 years, the mean height for black and white men was the same. This pattern by age and race is not observed for women, but average differences for women, as for men, were small. At age groups 18-24 and 25-34 years, white women were, on the average, 0.25 inch taller than black women. At ages 35-44 years, black women were 0.1 inch taller than white women; at ages 45-54 years, they were 0.2 inch taller; and at ages 65-74 years, they were 0.3 inch taller. At ages 55-64 years, the mean height for both races was the same. Small differences such as these could easily arise through sampling error, and there seems to be no justification for stating that there is any difference in average height between black and white women.

The decrease in mean height with age shown previously for the total population of men is also observed for black and white men separately. This pattern is also evident for black and white women with the exception of the mean height for black women at age 35-44 years.

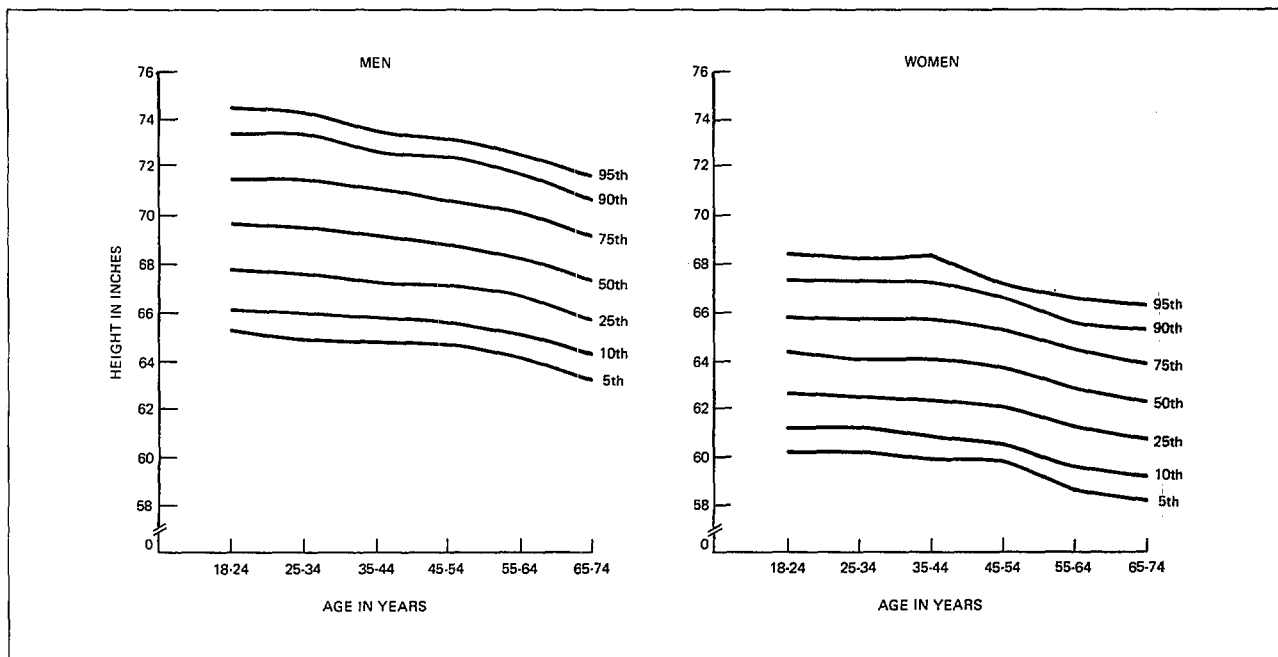


Figure 6. Selected estimated percentiles of height distribution in inches of adults 18-74 years, by age and sex: United States, 1971-74

Here, there is an increase in height and then a decline.

Interracial differences for men of ages 45-74 years were greater at the upper end of the height distribution than at the lower end. This picture was reversed for men at the lower ages. The interracial differences in height, however, were small and could easily arise through sampling error (figure 8).

The differences between white and black women discussed previously for the mean of the height distribution were also observed at about the same order of magnitude for the lower end of the distribution, for the median, and for the upper end of the distribution (figure 8).

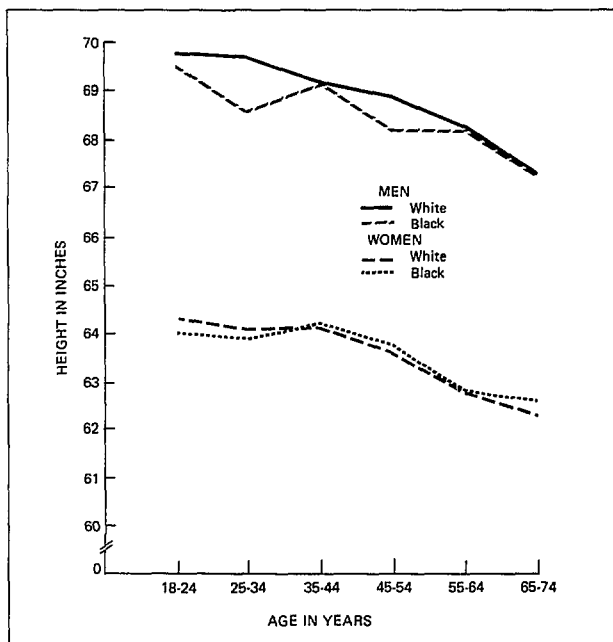


Figure 7. Mean height in inches of adults 18-74 years, by age, sex, and race: United States, 1971-74

### Comparison With the Health Examination Survey (1960-62)

Comparison is made here of the present findings for the adult population of the United States with those from the previous Health Examination Survey, 1960-62. Table 23 shows the number of persons examined with height and weight measurements by sex and age for 1960-62 and 1971-74.

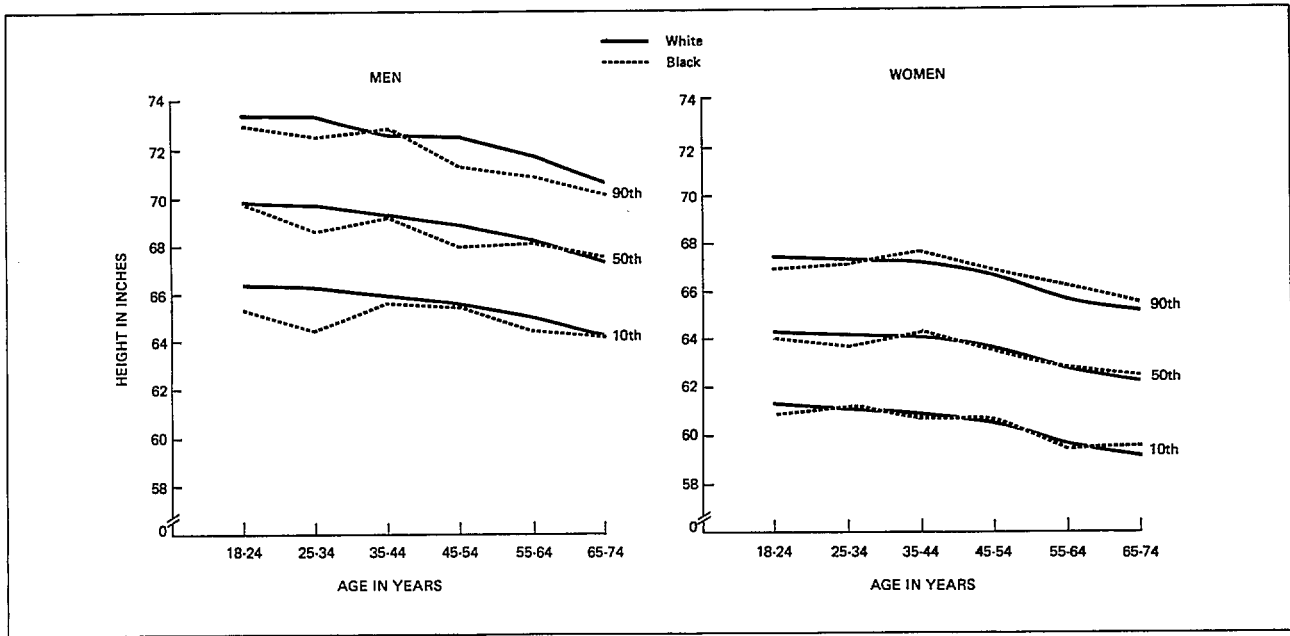


Figure 8. Selected estimated percentiles of height distribution in inches of men and women 18-74 years, by age and race: United States, 1971-74

Findings from the present study show that adults in the United States weighed more, on the average, than their counterparts in 1960-62. The HANES data on weights for men are consistently higher by an average of 6 pounds across the age range 18-74 years; for women, they are higher by an average of 3 pounds for this age range.

The pattern of differences in average weight for men shows a slight variation with age. The differences ranged from an average of 5 pounds in ages 45-54 years to an average of 8 pounds in ages 35-44 years. For women, the differences in average weight ranged from less than 1 pound in ages 55-64 years to an average of 6 pounds in ages 25-44 years (table 23, figure 9).

Tables 24 and 25 show cumulative percent distributions of weight for men and women by age in 1960-62 and 1971-74. In the most recent survey, 1971-74, the percent of men in each age group at the cutoff points indicated were greater than the corresponding percents of those in HES, 1960-62. This observation was also generally true for women with the exception of women ages 45 years and older.

The pattern of differences in weight at

various cutoff points found between the two surveys for total male adults in the United States was also consistently found for white males (table 26) but not for black males. Relatively

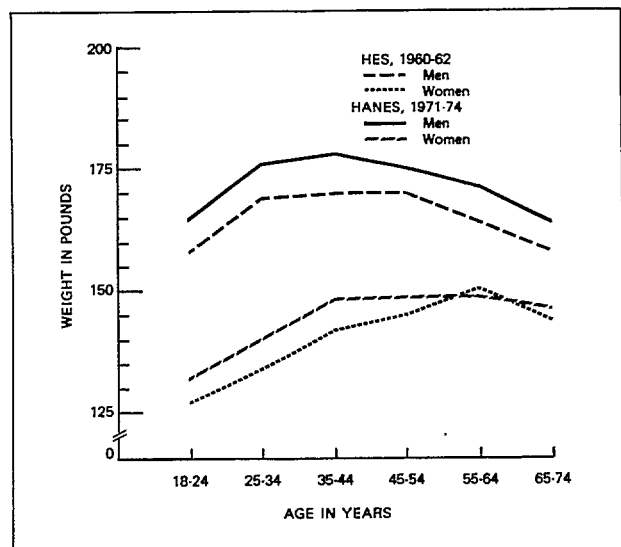


Figure 9. Mean weight in pounds of adults 18-74 years, by age and sex in HES (1960-62) and HANES (1971-74): United States

more black males ages 25-34 weighing 160 pounds or more were found in HES, 1960-62, than in HANES, 1971-74. There were also some indications of this pattern in percent of males of weights 170 pounds or more in ages 25-44 and 45-54 years. The proportion with those body weights in both HES and HANES was greater among white men than among black men in almost all age groups.

The proportion of white and black females in ages through 44 years having body weights above 140 and 150 pounds was greater in HANES than in HES (table 27). This pattern in difference in proportion was not consistent in the older ages (tables 28-30). There was a greater percent of women at ages 18-44 years who weighed 170 pounds or more, a crude estimate of obesity, in HANES than in HES. Women at these ages were heavier on the average than those of 10 years ago, particularly black women. The proportion of women with these body weights in both HES and HANES was greater among black women than among white women in all age groups.

Although heights of U.S. adults as measured from the Health and Nutrition Examination Survey, 1971-74, were taller than those from the Health Examination Survey, 1960-62, the differences are numerically small. HANES data for men's heights range from less than one-half inch to an inch taller than HES data. Corresponding values for women are from less than one-half inch to slightly more than three-quarters of an inch taller (table 23, figure 10).

Tables 31 and 32 show the cumulative percent distributions of height for men and women by age in 1960-62 and 1971-74. Men and women in HANES, 1971-74, were taller than those in HES, 1960-62. Fifty percent of the men in HANES were 69 inches or more as compared with 38 percent in HES across the age range of 18-74 years. The corresponding values for HANES and HES for heights of 70 inches or more are 36 and 28 percent, respectively. In this age range, 45 percent of the women in HANES were 64 inches or more as compared with 37 percent for HES. The corresponding values for HANES and HES for 65 inches or more are 30 and 21 percent, respectively. The proportions of men and women whose height exceeded any

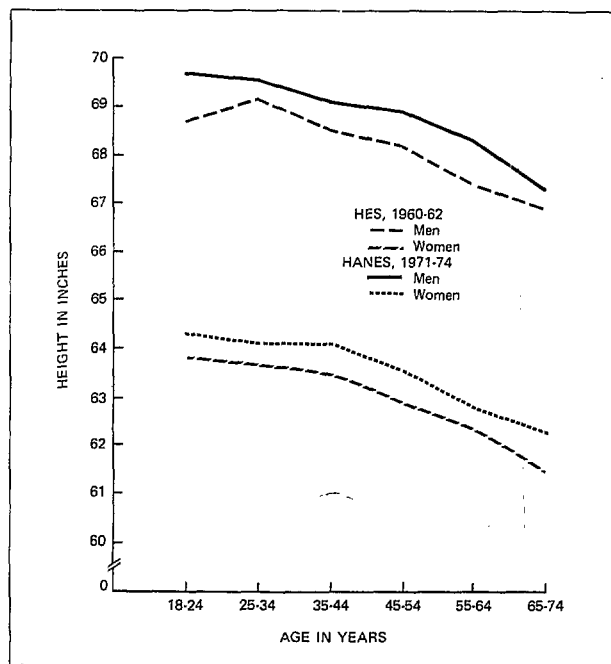


Figure 10. Mean height in inches of adults 18-74 years, by age and sex in HES (1960-62) and HANES (1971-74): United States

other specified height may be found in tables 31-32.

Tables 33-36 show by age the percent of white and black men and women having heights of 69 inches or more and 64 inches or more. (These are the median heights for men and women, respectively.) In most ages and in each of the sex and race groups the proportions of persons above these selected heights were greater in 1971-74 than in 1960-62. The proportion of persons whose heights exceeded any other specified level may be calculated from the data presented in table 37.

The HANES data on weights for men were consistently higher by an average of 6 pounds across the age range 18-74 years. The corresponding values for women were higher by an average of 3 pounds over the same age range. Heights of adults as measured during HANES were slightly greater than those from HES. Since weight increases per inch of height usually range on an average from 4 to 5 pounds in men and from 2 to 4 pounds in women, it can be stated that the increase in average weight for the population between 1960-62 and 1971-74 can be

attributed only in part to a corresponding increase in height.

The pattern of weight gain in the middle years and gradual decline with increasing age, in both surveys for men as well as for women, is illustrated in figure 11, which shows the proportionate change in average weight with age over the mean for the group aged 18-24 years. This trend in both surveys is influenced by secular changes in body size for successive generations represented in this cross-sectional data.

Women in HES generally attained their maximum weight about two decades later than men did and had a greater relative gain with age. The latter pattern is also evident for women in HANES but they attained their maximum weight about one decade later than men did. This delay, in both periods, may be attributed to the greater effort of weight-conscious younger women. Here again, it is not possible to determine from the data how much these findings may be influenced by any changes in body size for the successive generations in this cross-section of the population.

On the average, the relative decrease of height with age from 45 years or more was simi-

lar for men and women in both surveys (figure 12).

Comparable response rates and similar measurement processes for recording height and weight are necessary to compare the body measurements from the two surveys.

The HES sample had a response rate of 95 percent interviewed and 86 percent examined, a highly representative sample of the civilian non-institutionalized population of the United States. The corresponding rates for HANES were over 95 percent interviewed and 70 percent examined. The lower examination rate in the HANES sample than in the HES sample might have biased the mean weight—but not the mean height—downward because heavier persons, who are reported to be associated with more medical problems, might be less likely to come for examination. This is, however, unlikely, because an analysis of medical histories comparing the non-examinees with the examinees indicates no large differences between the nonexamined group and the examined group for the medical statistics compared. For example, 12 percent of the persons examined reported having an illness or condition which interfered with their eating as com-

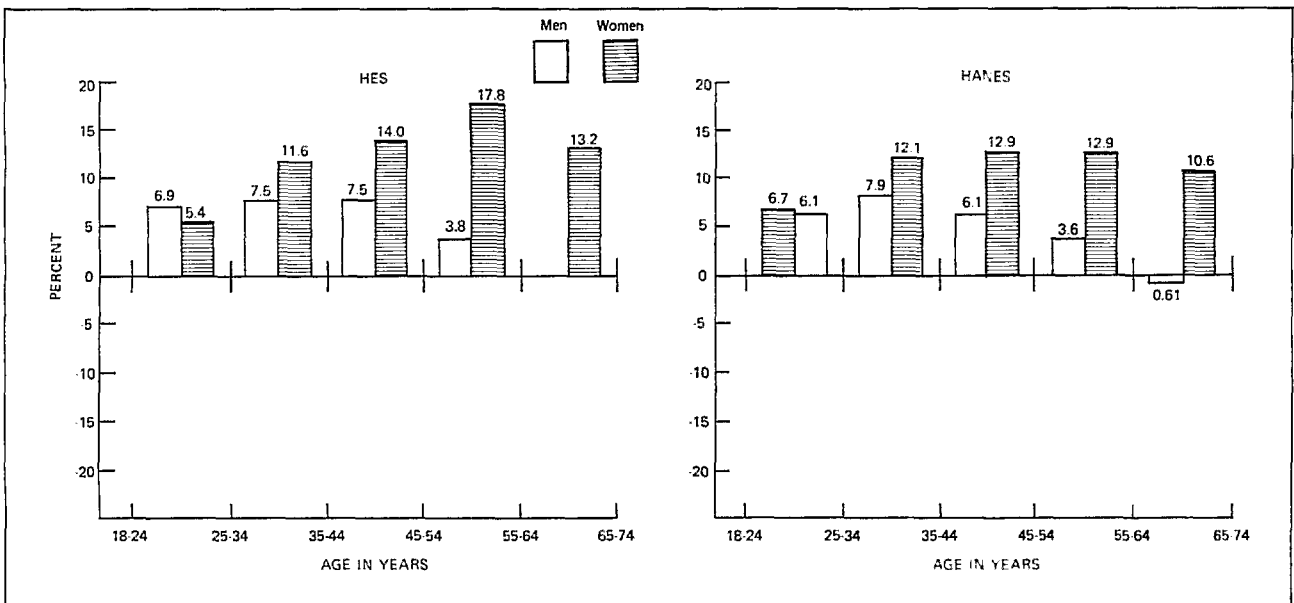


Figure 11. Relative change in weight with age over the mean for men and women 18-74 years in HES (1960-62) and HANES (1971-74); United States

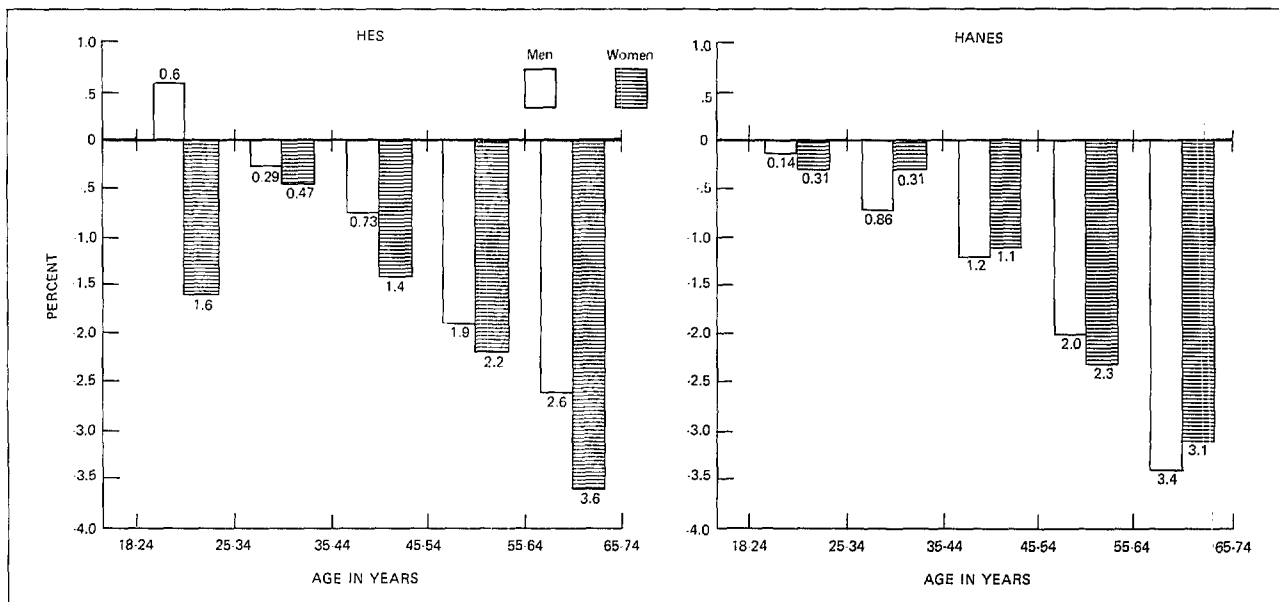


Figure 12. Relative change in height with age over the mean for men and women 18-74 years in HES (1960-62) and HANES (1971-74); United States

pared with 10 percent of persons not examined. The percent of examined persons who reported ever being told by a doctor that they had arthritis was 20 percent; the proportion for high blood pressure was 18 percent; and the proportion for diabetes was 4 percent. The corresponding percents for nonexamined persons were: arthritis, 18 percent; high blood pressure, 22 percent; and diabetes, 4 percent.

Measurement processes employed in both surveys for heights and weights were similar, highly standardized, and closely controlled. Two pounds were deducted from HES data to allow for weight of clothing. Total weights of all clothing for HANES ranged from 0.20 to 0.62 pound, which was not deducted from weight. In both surveys, height was measured without shoes.

## SUMMARY

Findings on height and weight among adults in the civilian noninstitutionalized population of the United States obtained in the Health and Nutrition Examination Survey of 1971-74 are presented and analyzed in this report. Major findings are as follows:

- Men average 172 pounds in weight, with

about 90 percent falling between 128 and 225 pounds. Weight decreases with age from the maximum average of 178 pounds for those 35-44 years of age to 164 pounds at 65-74 years.

- For white men, the average weight is 173 pounds, with about 90 percent falling between 129 and 224 pounds. Their maximum and minimum average weight is similar to that of all men within the same age group.

- The average weight of black men decreases with age from the maximum average of 182 pounds for those 35-44 years of age to 161 pounds at 65-74 years. The overall average weight is 171 pounds, with about 90 percent falling between 125 and 239 pounds.

- Women average 143 pounds, with about 90 percent falling between 104 and 203 pounds. Their maximum average weight is 149 pounds in the 45-64 year age group.

- White women average 142 pounds, with about 90 percent falling between 104 and 199 pounds. Their maximum average weight is 147 pounds for those 45-64 years of age, an increase of 15 pounds from 132 pounds at 18-24 years.

- About 90 percent of black women fall between 104 and 228 pounds, with an average of 156 pounds. The maximum average weight is 169 pounds for those 45-54 years of age, and

the minimum average weight is 138 pounds at 18-24 years.

- Men average 69.0 inches in height, with some 90 percent between 64.4 and 73.6 inches. Their average height decreases with age from a maximum of 69.7 inches to 67.3 inches.

- The average height for white men is similar to that of all men, 69.1 inches, with about 90 percent falling between 64.6 and 73.6 inches. The average height of white men ranges from a maximum of 69.8 inches at ages 18-24 years to 67.3 inches in the oldest age group.

- Black men average 68.6 inches, with about 90 percent between 64.1 inches and 73.3 inches. Average height decreases with age from a maximum of 69.5 inches to 67.3 inches.

- Women average 63.6 inches in height. However, there is a general decline in stature with age, beginning with 64.3 inches at 18-24 years and falling to 62.3 inches at 65-74 years. About 90 percent of all adult women are between 59.5 and 67.8 inches in height.

- For white women, the average height is 63.7 inches, with some 90 percent between 59.5 and 67.8 inches. The maximum average height is 64.3 inches at ages 18-24 years and declines to 62.3 inches at ages 65-74 years.

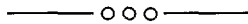
- For black women, the average height is 63.7 inches, with some 90 percent between 59.6 and 67.8 inches. The maximum average height of 64.2 inches at ages 35-44 years declines to 62.6 inches at ages 65-74 years.

- For the age range 18-74 years, about 50 percent of men are 69.0 inches or taller and 45 percent of women are 64.0 inches or taller in HANES as compared with 38 percent of men and 37 percent of women in HES.

- For the age range 18-74 years, about 49 percent of the men are 170 pounds or more and 45 percent of the women are 140 pounds or more in HANES as compared with 45 percent of men and 45 percent of women in HES.

- At ages 18 through 44 years, there is a greater percent of women weighing 170 pounds or more in HANES than in HES; relatively more women, particularly black women, are heavy, possible obese, than was the case about 10 years ago.

- The maximum average weight of women in HES, 150 pounds, is in the 55-64 year age group, or about 20 years later than that for men. The maximum weight for women in HANES occurs in 45-64 years, or about 10 years later than that for men.





## LIST OF DETAILED TABLES

1.	Estimated number of men aged 18-74 years, by age and weight: United States, 1971-74 . . . . .	14
2.	Estimated number of women aged 18-74 years, by age and weight: United States, 1971-74 . . . . .	15
3.	Percent distribution of adults aged 18-74 years by sex and weight, according to age: United States, 1971-74 . . . . .	16
4.	Weight in pounds of adults aged 18-74 years, by sex and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74. . . . .	17
5.	Estimated number of white men aged 18-74 years, by age and weight: United States, 1971-74. . . . .	18
6.	Estimated number of black men aged 18-74 years, by age and weight: United States, 1971-74 . . . . .	19
7.	Estimated number of white women aged 18-74 years, by age and weight: United States, 1971-74 . . . . .	20
8.	Estimated number of black women aged 18-74 years, by age and weight: United States, 1971-74 . . . . .	21
9.	Percent distribution of white adults aged 18-74 years by sex and weight, according to age: United States, 1971-74 . . . . .	22
10.	Percent distribution of black adults aged 18-74 years by sex and weight, according to age: United States, 1971-74 . . . . .	23
11.	Weight in pounds of adults aged 18-74 years, by sex, race, and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74 . . . . .	24
12.	Estimated number of men aged 18-74 years, by age and height: United States, 1971-74 . . . . .	25
13.	Estimated number of women aged 18-74 years, by age and height: United States, 1971-74 . . . . .	26
14.	Percent distribution of adults aged 18-74 years by sex and height, according to age: United States, 1971-74 . . . . .	27
15.	Height in inches of adults aged 18-74 years, by sex and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74. . . . .	28
16.	Estimated number of white men aged 18-74 years, by age and height: United States, 1971-74 . . . . .	28
17.	Estimated number of black men aged 18-74 years, by age and height: United States, 1971-74 . . . . .	29
18.	Estimated number of white women aged 18-74 years, by age and height: United States, 1971-74 . . . . .	30
19.	Estimated number of black women aged 18-74 years, by age and height: United States, 1971-74 . . . . .	31
20.	Percent distribution of white adults aged 18-74 years by sex and height, according to age: United States, 1971-74 . . . . .	32
21.	Percent distribution of black adults aged 18-74 years by sex and height, according to age: United States, 1971-74 . . . . .	33
22.	Height in inches of adults aged 18-74 years, by sex, race, and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74 . . . . .	34
23.	Comparison of mean heights and weights in HES (1960-62) and HANES (1971-74), by sex and age: United States . . . . .	35
24.	Cumulative percent distribution of weight in pounds of men in HES (1960-62) and HANES (1971-74), by age: United States. . . . .	36

25. Cumulative percent distribution of weight in pounds of women in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	36
26. Cumulative percent distribution of weight in pounds of white men in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	37
27. Cumulative percent distribution of weight in pounds of black men in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	37
28. Cumulative percent distribution of weight in pounds of white women in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	38
29. Cumulative percent distribution of weight in pounds of black women in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	38
30. Percent of adults aged 18-74 years above selected weights in HES (1960-62) and HANES (1971-74), by age, sex, and race: United States . . . . .	39
31. Cumulative percent distribution of height in inches of men in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	40
32. Cumulative percent distribution of height in inches of women in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	40
33. Cumulative percent distribution of height in inches of white men in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	41
34. Cumulative percent distribution of height in inches of black men in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	41
35. Cumulative percent distribution of height in inches of white women in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	42
36. Cumulative percent distribution of height in inches of black women in HES (1960-62) and HANES (1971-74), by age: United States . . . . .	42
37. Percent of adults aged 18-74 years above selected heights in HES (1960-62) and HANES (1971-74), by age, sex, and race: United States . . . . .	43

Table 1. Estimated number of men aged 18-74 years, by age and weight: United States, 1971-74

Weight in pounds	Age of men						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
	Estimated number in thousands						
All weights-----	61,091	11,753	13,002	10,692	11,150	8,998	5,496
Less than 100-----	86	-	-	4	9	53	20
100-109-----	401	63	39	20	85	118	76
110-119-----	821	208	107	89	107	168	142
120-129-----	2,359	686	375	356	368	254	320
130-139-----	3,888	1,115	740	493	574	543	423
140-149-----	6,203	1,795	1,328	694	893	877	616
150-159-----	8,492	1,959	2,101	1,082	1,292	1,125	933
160-169-----	8,762	1,818	1,518	1,648	1,662	1,297	819
170-179-----	8,349	1,198	1,676	1,473	1,564	1,662	776
180-189-----	6,902	883	1,448	1,507	1,491	1,044	529
190-199-----	5,141	706	1,218	1,224	1,140	513	340
200-209-----	3,339	357	740	962	564	515	201
210-219-----	2,329	333	547	319	622	322	186
220-229-----	1,636	268	445	355	364	166	38
230-239-----	879	173	217	122	197	139	31
240-249-----	439	75	99	81	75	93	16
250 or more-----	1,067	118	404	262	143	108	32

Table 2. Estimated number of women aged 18-74 years, by age and weight: United States, 1971-74

Weight in pounds	Age of women						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
All weights-----	67,925	12,924	13,933	11,576	12,163	10,052	7,277
Less than 90-----	554	128	69	26	71	180	80
90-99-----	1,585	546	380	162	105	205	187
100-109-----	4,516	1,317	1,200	527	548	573	351
110-119-----	8,722	2,559	2,147	1,314	1,240	770	692
120-129-----	10,733	2,391	2,669	1,966	1,707	1,086	914
130-139-----	11,364	2,428	2,298	2,011	1,816	1,719	1,092
140-149-----	8,084	1,282	1,450	1,390	1,601	1,221	1,140
150-159-----	6,021	672	970	1,109	1,349	1,136	785
160-169-----	4,994	589	634	750	1,285	1,045	691
170-179-----	3,404	348	657	576	653	643	527
180-189-----	2,301	177	439	428	488	462	307
190-199-----	1,857	186	238	349	490	372	222
200-209-----	1,022	46	223	248	144	253	108
210-219-----	929	73	121	249	298	119	69
220-229-----	535	22	165	104	80	130	34
230-239-----	399	69	72	111	93	19	35
240-249-----	244	13	50	71	90	7	13
250-259-----	109	13	49	13	23	-	11
260-269-----	130	18	27	25	12	44	4
270-279-----	122	10	24	39	43	4	2
280 or more-----	301	37	51	109	25	64	15

Table 3. Percent distribution of adults aged 18-74 years by sex and weight, according to age: United States, 1971-74

Sex and weight in pounds	Age of adults						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
<u>Men</u>							
Percent distribution							
All weights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 100-----	0.14	-	-	0.0	0.0	0.60	0.36
100-109-----	0.66	0.54	0.31	0.20	0.76	1.31	1.39
110-119-----	1.35	1.76	0.91	0.75	0.96	1.86	2.59
120-129-----	3.84	5.75	2.92	3.34	3.30	2.83	5.83
130-139-----	6.30	9.36	5.76	4.39	5.18	6.03	7.68
140-149-----	10.13	15.45	10.24	6.40	8.03	9.72	11.21
150-159-----	13.85	16.41	16.21	10.29	11.59	12.48	16.98
160-169-----	14.37	15.46	11.67	15.54	14.89	14.42	14.90
170-179-----	13.68	10.21	12.81	13.82	14.02	18.49	14.11
180-189-----	11.37	7.67	11.00	14.32	13.36	11.62	9.63
190-199-----	8.42	7.00	9.36	11.34	10.21	5.72	6.17
200-209-----	5.50	3.12	5.63	9.05	5.06	5.71	3.66
210-219-----	3.81	2.85	4.22	2.92	5.57	3.60	3.38
220-229-----	2.69	2.29	3.38	3.40	3.26	1.85	0.68
230-239-----	1.43	1.44	1.71	1.06	1.77	1.54	0.57
240-249-----	0.72	0.64	0.75	0.77	0.68	1.03	0.28
250 or more-----	1.74	1.05	3.12	2.38	1.28	1.19	0.58
<u>Women</u>							
All weights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 90-----	0.80	0.99	0.49	0.22	0.59	1.77	1.10
90-99-----	2.32	4.28	2.72	1.40	0.87	2.04	2.57
100-109-----	6.60	10.18	8.62	4.55	4.51	5.69	4.82
110-119-----	12.77	19.74	15.50	11.34	10.27	7.59	9.51
120-129-----	15.75	18.30	19.24	16.96	14.06	10.72	12.54
130-139-----	16.68	18.70	16.44	17.37	14.98	17.08	15.01
140-149-----	11.95	9.99	10.42	12.00	13.23	12.13	15.66
150-159-----	8.93	5.33	6.93	9.59	11.11	11.32	10.79
160-169-----	7.37	4.58	4.54	6.49	10.52	10.38	9.49
170-179-----	5.01	2.66	4.68	4.98	5.30	6.36	7.25
180-189-----	3.42	1.38	3.12	3.70	4.01	4.65	4.21
190-199-----	2.76	1.48	1.70	3.01	4.01	3.76	3.05
200-209-----	1.52	0.38	1.60	2.14	1.17	2.54	1.49
210-219-----	1.39	0.57	0.87	2.15	2.42	1.24	0.96
220-229-----	0.79	0.17	1.17	0.90	0.66	1.30	0.46
230-239-----	0.59	0.56	0.52	0.96	0.76	0.19	0.48
240-249-----	0.36	0.10	0.36	0.62	0.71	0.07	0.18
250-259-----	0.17	0.10	0.35	0.12	0.20	-	0.15
260-269-----	0.19	0.15	0.19	0.22	0.10	0.43	0.0
270-279-----	0.17	0.07	0.17	0.34	0.32	0.0	0.0
280 or more-----	0.46	0.29	0.37	0.94	0.20	0.70	0.20

NOTE: Percents may not add to 100.00 due to rounding.

Table 4. Weight in pounds of adults aged 18-74 years, by sex and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74

Sex and age	Sample size	Estimated population in thousands	Mean	Standard deviation	Standard error of the mean	Percentiles						
						5th	10th	25th	50th	75th	90th	95th
<u>Men</u>												
Weight in pounds												
18-74 years---	5,260	61,091	172	31.1	0.64	128	137	152	170	189	211	225
18-24 years-----	772	11,753	165	29.6	1.64	124	132	145	161	180	204	222
25-34 years-----	804	13,002	176	35.0	1.45	132	140	153	172	193	217	233
35-44 years-----	665	10,692	178	30.0	1.56	132	143	160	176	196	213	225
45-54 years-----	765	11,150	175	29.2	1.12	130	139	157	175	192	215	225
55-64 years-----	597	8,998	171	30.0	1.28	125	137	152	170	187	208	222
65-74 years-----	1,657	5,496	164	27.0	0.88	122	130	147	163	180	198	211
<u>Women</u>												
18-74 years---	8,411	67,925	143	32.3	0.53	104	110	122	137	159	185	203
18-24 years-----	1,524	12,924	132	27.4	0.69	100	106	114	128	142	163	181
25-34 years-----	1,896	13,933	140	32.0	0.82	103	109	119	132	152	181	202
35-44 years-----	1,663	11,576	148	35.0	1.14	109	114	124	139	163	195	215
45-54 years-----	836	12,163	149	32.0	1.39	109	114	127	145	164	191	213
55-64 years-----	670	10,052	149	33.3	1.26	104	111	128	144	166	191	203
65-74 years-----	1,822	7,277	146	29.1	1.07	105	112	126	142	163	183	195

NOTE: Total weights of all clothing ranged from 0.20 to 0.62 lb., which is not deducted from weights shown in table.

Table 5. Estimated number of white men aged 18-74 years, by age and weight: United States, 1971-74

Weight in pounds	Age of white men						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
	Estimated number in thousands						
All weights-----	54,606	10,271	11,594	9,532	10,039	8,200	4,970
Less than 100-----	81	-	-	-	9	53	19
100-109-----	369	60	24	20	82	114	69
110-119-----	585	166	28	40	93	134	124
120-129-----	1,983	501	299	324	351	244	264
130-139-----	3,115	957	602	333	385	489	349
140-149-----	5,265	1,523	1,159	569	744	723	547
150-159-----	7,598	1,745	1,837	1,033	1,168	957	858
160-169-----	7,953	1,623	1,356	1,538	1,446	1,227	763
170-179-----	7,720	1,039	1,562	1,347	1,469	1,572	731
180-189-----	6,572	802	1,400	1,455	1,428	989	498
190-199-----	4,692	676	1,091	1,035	1,087	497	306
200-209-----	3,074	318	712	883	515	465	181
210-219-----	2,108	298	479	254	593	322	162
220-229-----	1,557	261	431	355	311	166	33
230-239-----	712	173	163	66	176	111	23
240-249-----	398	75	99	81	68	59	16
250 or more-----	824	55	350	198	115	78	28

Table 6. Estimated number of black men aged 18-74 years, by age and weight: United States, 1971-74

Weight in pounds	Age of black men						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
All weights-----	5,753	1,270	1,232	1,005	1,057	703	486
Less than 100-----	1	-	-	-	-	-	1
100-109-----	12	3	-	-	3	4	2
110-119-----	166	34	47	18	14	34	19
120-129-----	211	75	35	32	15	10	44
130-139-----	642	125	115	98	189	44	71
140-149-----	853	244	169	99	132	149	60
150-159-----	738	187	212	50	117	97	75
160-169-----	795	192	155	106	216	70	56
170-179-----	579	156	114	97	80	90	42
180-189-----	323	81	48	53	63	49	29
190-199-----	449	30	127	189	53	16	34
200-209-----	258	39	28	79	50	47	15
210-219-----	204	35	64	64	18	-	23
220-229-----	75	7	10	-	53	-	5
230-239-----	165	-	54	56	21	28	6
240-249-----	41	-	-	-	7	34	-
250 or more-----	243	63	54	65	27	30	4



Table 7. Estimated number of white women aged 18-74 years, by age and weight: United States, 1971-74

Weight in pounds	Age of white women						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
All weights-----	60,011	11,161	12,161	10,095	10,879	9,112	6,603
Less than 90-----	496	101	46	22	71	180	76
90-99-----	1,345	462	315	141	97	186	144
100-109-----	3,968	1,124	1,072	457	504	511	300
110-119-----	8,053	2,233	2,019	1,202	1,194	748	657
120-129-----	9,937	2,090	2,489	1,904	1,559	1,023	872
130-139-----	10,138	2,190	1,903	1,757	1,676	1,590	1,022
140-149-----	7,332	1,112	1,289	1,243	1,508	1,125	1,055
150-159-----	5,274	573	809	928	1,232	1,021	711
160-169-----	4,324	503	524	631	1,090	959	617
170-179-----	2,859	296	525	439	506	614	479
180-189-----	1,875	134	322	342	438	374	265
190-199-----	1,531	124	204	308	408	300	187
200-209-----	804	25	193	160	120	213	93
210-219-----	685	61	106	193	227	69	29
220-229-----	437	22	118	81	76	110	30
230-239-----	317	38	67	85	76	19	32
240-249-----	179	10	41	59	49	7	13
250-259-----	97	13	49	8	23	-	4
260-269-----	66	9	-	3	8	44	2
270-279-----	76	9	23	30	8	4	2
280 or more-----	221	32	46	102	11	17	13

Table 8. Estimated number of black women aged 18-74 years, by age and weight: United States, 1971-74

Weight in pounds	Age of black women						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
All weights-----	7,302	1,578	1,646	1,318	1,237	871	652
Less than 90-----	54	27	23	-	-	-	4
90-99-----	186	53	65	10	-	19	39
100-109-----	427	150	109	37	33	62	36
110-119-----	581	305	95	81	45	22	33
120-129-----	687	265	161	49	127	44	41
130-139-----	1,100	226	356	207	137	104	70
140-149-----	735	162	154	144	93	96	86
150-159-----	712	88	160	162	114	116	72
160-169-----	629	77	110	114	195	61	72
170-179-----	540	47	132	137	147	29	48
180-189-----	425	43	118	86	50	87	41
190-199-----	308	54	24	41	82	72	35
200-209-----	216	21	30	87	24	40	14
210-219-----	244	11	15	56	71	51	40
220-229-----	99	-	48	23	4	20	4
230-239-----	83	31	5	26	18	-	3
240-249-----	66	3	9	12	42	-	-
250-259-----	13	-	-	6	-	-	7
260-269-----	65	8	27	23	5	-	2
270-279-----	47	1	1	10	35	-	-
280 or more-----	82	4	6	7	15	48	2

Table 9. Percent distribution of white adults aged 18-74 years by sex and weight, according to age: United States, 1971-74

Sex and weight in pounds	Age of white adults							
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	
<u>Men</u>		Percent distribution						
All weights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Less than 100-----	0.15	-	-	-	0.09	0.65	0.37	
100-109-----	0.68	0.59	0.21	0.21	0.81	1.39	1.39	
110-119-----	1.06	1.62	0.24	0.42	0.93	1.63	2.49	
120-129-----	3.61	4.76	2.58	3.40	3.49	2.97	5.31	
130-139-----	5.64	9.17	5.20	3.50	3.84	5.97	7.03	
140-149-----	9.61	15.04	9.99	5.98	7.41	8.81	11.02	
150-159-----	13.81	16.71	15.85	10.84	11.64	11.67	17.26	
160-169-----	14.59	15.80	11.70	16.13	14.40	14.96	15.35	
170-179-----	14.15	10.09	13.47	14.11	14.63	19.17	14.71	
180-189-----	12.12	7.98	12.07	15.26	14.23	12.07	10.01	
190-199-----	8.63	6.62	9.41	10.86	10.82	6.06	6.15	
200-209-----	5.68	3.18	6.14	9.27	5.13	5.66	3.64	
210-219-----	3.87	2.92	4.13	2.67	5.90	3.93	3.27	
220-229-----	2.86	2.56	3.73	3.73	3.10	2.03	0.66	
230-239-----	1.30	1.66	1.41	0.70	1.75	1.36	0.47	
240-249-----	0.73	0.74	0.85	0.84	0.68	0.72	0.32	
250 or more-----	1.51	0.56	3.02	2.08	1.15	0.95	0.55	
<u>Women</u>		Percent distribution						
All weights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Less than 90-----	0.81	0.89	0.38	0.22	0.65	1.97	1.15	
90-99-----	2.22	4.18	2.59	1.39	0.89	2.04	2.18	
100-109-----	6.56	10.06	8.82	4.53	4.63	5.60	4.55	
110-119-----	13.34	20.01	16.60	11.90	10.98	8.21	9.95	
120-129-----	16.52	18.52	20.47	18.87	14.33	11.23	13.21	
130-139-----	16.84	19.61	15.65	17.40	15.41	17.46	15.48	
140-149-----	12.27	10.04	10.60	12.32	13.86	12.35	15.96	
150-159-----	8.85	5.26	6.66	9.19	11.32	11.20	10.77	
160-169-----	7.24	4.51	4.30	6.25	10.03	10.52	9.34	
170-179-----	4.77	2.60	4.32	4.35	4.65	6.74	7.26	
180-189-----	3.15	1.18	2.65	3.39	4.02	4.11	4.02	
190-199-----	2.57	1.12	1.67	3.04	3.75	3.28	2.83	
200-209-----	1.36	0.24	1.59	1.59	1.10	2.34	1.41	
210-219-----	1.16	0.55	0.88	1.92	2.09	0.75	0.44	
220-229-----	0.73	0.20	0.97	0.80	0.70	1.21	0.45	
230-239-----	0.54	0.35	0.55	0.84	0.69	0.20	0.49	
240-249-----	0.30	0.10	0.33	0.59	0.45	0.08	0.19	
250-259-----	0.16	0.12	0.41	0.08	0.21	-	0.07	
260-269-----	0.11	0.09	-	0.0	0.07	0.48	0.0	
270-279-----	0.13	0.07	0.18	0.30	0.07	0.0	0.0	
280 or more-----	0.37	0.30	0.38	1.01	0.10	0.18	0.20	

NOTE: Percents may not add to 100.00 due to rounding.

Table 10. Percent distribution of black adults aged 18-74 years by sex and weight, according to age: United States, 1971-74

Sex and weight in pounds	Age of black adults						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
<u>Men</u>							
Percent distribution							
All weights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 100-----	0.0	-	-	-	-	-	0.19
100-109-----	0.21	0.21	-	-	0.30	0.62	0.49
110-119-----	2.91	2.55	3.83	1.76	1.37	4.87	3.90
120-129-----	3.60	5.67	2.77	3.16	1.41	1.49	9.05
130-139-----	11.21	9.80	9.35	9.74	17.95	6.19	14.50
140-149-----	14.86	18.97	13.75	9.76	12.48	21.18	12.31
150-159-----	13.19	14.59	17.15	5.30	11.06	13.78	15.51
160-169-----	13.96	15.30	12.59	10.53	20.29	9.96	11.52
170-179-----	10.10	12.58	9.23	9.62	7.56	12.77	8.73
180-189-----	5.60	6.57	3.88	5.20	5.96	7.03	5.87
190-199-----	7.49	2.27	10.33	18.74	5.02	2.29	6.93
200-209-----	4.32	3.12	2.30	7.85	4.70	6.73	3.12
210-219-----	3.52	2.83	5.22	6.36	1.66	-	4.78
220-229-----	1.37	0.57	0.85	0.0	5.00	-	1.02
230-239-----	2.79	-	4.36	5.57	1.95	3.99	1.23
240-249-----	0.71	-	-	-	0.70	4.90	-
250 or more-----	4.14	4.97	4.39	6.41	2.59	4.20	0.85
<u>Women</u>							
All weights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 90-----	0.74	1.75	1.38	-	-	-	0.63
90-99-----	2.58	3.46	3.93	0.76	-	2.24	5.96
100-109-----	5.83	9.23	6.60	2.83	2.67	6.98	5.56
110-119-----	8.00	19.04	5.88	6.17	3.67	2.52	5.11
120-129-----	9.31	16.74	9.80	3.74	10.31	4.80	6.11
130-139-----	15.02	14.41	21.63	15.72	11.10	12.04	10.67
140-149-----	10.16	10.40	9.31	10.96	7.51	11.03	13.23
150-159-----	9.83	5.67	9.71	12.30	9.19	13.34	11.20
160-169-----	8.51	4.94	6.70	8.63	15.72	7.06	11.07
170-179-----	7.28	3.06	8.00	10.39	11.91	3.33	7.37
180-189-----	5.91	2.82	7.13	6.54	4.07	10.08	6.34
190-199-----	4.27	3.44	1.43	3.10	6.75	8.32	5.37
200-209-----	3.04	1.35	1.79	6.62	1.95	4.62	2.28
210-219-----	3.37	0.73	0.89	4.21	5.72	5.83	6.22
220-229-----	1.34	0.0	2.88	1.73	0.30	2.32	0.61
230-239-----	1.12	1.92	0.29	1.97	1.42	-	0.44
240-249-----	0.86	0.17	0.57	0.94	3.40	-	-
250-259-----	0.17	-	-	0.42	-	-	1.06
260-269-----	0.87	0.50	1.66	1.72	0.37	-	0.30
270-279-----	0.62	0.09	0.07	0.73	2.85	-	-
280 or more-----	1.17	0.28	0.35	0.52	1.19	5.49	0.27

NOTE: Percents may not add to 100.00 due to rounding.

Table 11. Weight in pounds of adults aged 18-74 years, by sex, race, and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74

Sex, race, and age	Sample size	Estimated population in thousands	Mean	Standard deviation	Standard error of the mean	Percentile						
						5th	10th	25th	50th	75th	90th	95th
<u>MEN</u>												
Weight in pounds												
<u>White</u>												
18-74 years-----	4,343	54,606	173	30	0.75	129	138	153	171	190	211	224
18-24 years-----	625	10,271	165	28	1.89	125	133	146	162	182	205	222
25-34 years-----	672	11,594	177	32	1.40	134	142	155	173	194	217	232
35-44 years-----	570	9,532	178	29	1.66	133	145	160	177	195	211	224
45-54 years-----	628	10,039	176	29	1.23	129	141	158	176	193	214	225
55-64 years-----	504	8,200	171	29	1.49	125	136	153	171	187	208	220
65-74 years-----	1,344	4,970	164	27	0.99	123	131	148	164	180	198	210
<u>Black</u>												
18-74 years-----	847	5,753	171	40	2.54	125	134	145	163	189	217	239
18-24 years-----	132	1,270	166	37	4.04	123	131	142	159	176	202	227
25-34 years-----	119	1,232	175	51	8.17	124	134	148	162	193	219	235
35-44 years-----	87	1,005	182	37	4.59	130	137	151	180	201	236	255
45-54 years-----	130	1,057	168	32	3.75	135	136	145	162	185	220	230
55-64 years-----	85	703	172	41	6.34	119	138	145	163	186	237	249
65-74 years-----	294	486	161	30	2.31	121	127	137	156	179	205	218
<u>WOMEN</u>												
<u>White</u>												
18-74 years-----	6,758	60,011	142	31	0.59	104	110	121	136	157	182	199
18-24 years-----	1,165	11,161	132	26	0.82	100	106	115	128	142	162	177
25-34 years-----	1,539	12,161	138	31	1.02	104	109	118	131	150	179	201
35-44 years-----	1,301	10,095	146	34	1.29	109	114	124	137	159	191	213
45-54 years-----	705	10,879	147	30	1.32	109	113	126	143	162	188	204
55-64 years-----	552	9,112	147	30	1.35	103	111	127	143	164	187	201
65-74 years-----	1,496	6,603	145	28	1.08	105	113	126	142	162	180	192
<u>Black</u>												
18-74 years-----	1,557	7,302	156	41	1.53	104	111	129	148	176	207	228
18-24 years-----	329	1,578	138	34	2.47	100	107	114	130	150	184	203
25-34 years-----	335	1,646	149	37	3.20	100	108	127	141	170	190	226
35-44 years-----	334	1,318	165	39	2.68	112	121	136	158	185	216	238
45-54 years-----	126	1,237	169	42	4.53	115	128	139	162	186	215	244
55-64 years-----	115	871	168	48	6.37	104	118	139	156	191	215	297
65-74 years-----	318	652	155	36	3.28	94	109	133	153	177	202	219

NOTE: Total weights of all clothing ranged from 0.20 to 0.62 lb., which is not deducted from weights shown in tables.

Table 12. Estimated number of men aged 18-74 years, by age and height: United States, 1971-74

Height in inches	Age of men						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
All heights-----	61,091	11,753	13,002	10,692	11,150	8,998	5,496
Less than 60-----	77	-	-	7	18	20	32
60-----	164	39	19	40	3	23	40
61-----	152	5	11	47	31	12	46
62-----	646	147	13	88	141	133	124
63-----	1,218	120	273	200	211	192	222
64-----	2,167	212	383	299	290	485	498
65-----	3,867	549	546	525	764	757	726
66-----	6,004	889	1,217	986	1,076	1,090	746
67-----	7,558	1,140	1,305	1,241	1,605	1,439	828
68-----	8,352	1,501	1,404	1,603	1,719	1,313	812
69-----	8,642	1,666	2,045	1,537	1,595	1,241	558
70-----	7,555	1,808	1,763	1,343	1,341	841	459
71-----	5,494	1,342	1,192	1,127	817	834	182
72-----	4,270	871	1,142	883	870	325	179
73-----	2,806	764	931	465	425	195	26
74-----	1,154	329	366	198	173	70	18
75-----	417	112	177	72	50	5	1
76 or more-----	552	260	216	30	22	24	-

Table 13. Estimated number of women aged 18-74 years, by age and height: United States, 1971-74

Height in inches	Age of women						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
All heights-----	67,925	12,924	13,933	11,576	12,163	10,052	7,277
Less than 55-----	33	10	6	4	-	-	13
55-----	155	4	17	7	-	100	27
56-----	216	19	2	27	42	76	50
57-----	536	70	80	31	27	124	204
58-----	1,105	162	159	106	58	323	297
59-----	2,503	248	295	427	493	558	482
60-----	4,583	561	528	689	1,003	895	907
61-----	7,494	1,039	1,444	966	1,258	1,613	1,174
62-----	10,165	1,689	2,082	1,555	1,969	1,565	1,305
63-----	10,315	1,963	2,256	1,654	1,841	1,570	1,031
64-----	10,150	1,982	1,943	1,891	2,118	1,438	778
65-----	9,078	2,151	2,046	1,829	1,450	1,032	570
66-----	5,325	1,257	1,381	977	1,031	428	251
67-----	3,134	887	842	637	488	189	91
68-----	1,819	431	539	458	228	85	78
69-----	744	244	161	197	90	37	15
70-----	347	113	113	73	31	17	-
71 or more-----	225	95	40	49	34	4	3

Table 14. Percent distribution of adults aged 18-74 years by sex and height, according to age: United States, 1971-74

Sex and height in inches	Age of adults						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
<u>Men</u>							
Percent distribution							
All heights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 60-----	0.13	-	-	0.07	0.16	0.22	0.58
60-----	0.27	0.35	0.17	0.36	0.03	0.26	0.73
61-----	0.25	0.05	0.08	0.42	0.27	0.13	0.83
62-----	1.05	1.28	0.10	0.73	1.27	1.47	2.25
63-----	1.99	0.98	2.11	1.85	1.89	2.13	4.05
64-----	3.59	1.81	3.11	2.80	2.61	5.39	9.05
65-----	6.35	4.68	4.27	4.86	6.85	8.41	13.20
66-----	9.87	7.72	9.34	9.27	9.64	12.13	13.57
67-----	12.35	9.51	10.07	11.48	14.41	15.98	15.07
68-----	13.69	12.62	10.82	15.13	15.44	14.59	14.77
69-----	14.14	14.20	15.68	14.42	14.30	13.80	10.15
70-----	12.34	15.31	13.49	12.66	12.02	9.32	8.36
71-----	9.01	11.59	9.11	10.66	7.33	9.28	3.30
72-----	6.97	7.41	8.76	8.15	7.79	3.62	3.27
73-----	4.55	6.38	7.08	4.43	3.80	2.17	0.48
74-----	1.87	2.86	2.81	1.74	1.55	0.77	0.33
75-----	0.68	0.95	1.36	0.68	0.45	0.06	0.0
76 or more-----	0.90	2.30	1.64	0.29	0.19	0.27	-
<u>Women</u>							
All heights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 55-----	0.05	0.08	0.0	0.0	-	-	0.18
55-----	0.23	0.0	0.13	0.06	-	1.03	0.37
56-----	0.32	0.16	0.0	0.23	0.35	0.75	0.69
57-----	0.79	0.55	0.58	0.27	0.22	1.22	2.80
58-----	1.63	1.28	1.13	0.92	0.47	3.23	4.09
59-----	3.73	1.96	2.13	3.70	4.07	5.60	6.62
60-----	6.79	4.48	3.80	5.95	8.24	8.86	12.46
61-----	11.06	8.10	10.36	8.34	10.39	16.04	16.12
62-----	14.99	13.14	14.92	13.42	16.13	15.57	17.96
63-----	15.17	15.17	16.16	14.29	15.15	15.56	14.17
64-----	14.94	15.37	13.93	16.34	17.42	14.24	10.69
65-----	13.30	16.42	14.68	15.80	11.93	10.30	7.84
66-----	7.83	9.72	9.93	8.43	8.48	4.29	3.43
67-----	4.58	6.83	6.05	5.51	3.98	1.89	1.25
68-----	2.68	3.30	3.88	3.95	1.88	0.85	1.08
69-----	1.08	1.84	1.17	1.70	0.74	0.37	0.21
70-----	0.51	0.86	0.81	0.63	0.27	0.16	-
71 or more-----	0.32	0.71	0.29	0.42	0.28	0.0	0.0

NOTE: Percents may not add to 100.00 due to rounding.



Table 15. Height in inches of adults aged 18-74 years, by sex and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74

Sex and age	Sample size	Estimated population in thousands	Mean	Standard deviation	Standard error of the mean	Percentile						
						5th	10th	25th	50th	75th	90th	95th
Height in inches												
<u>Men</u>												
18-74 years---	5,260	61,091	69.0	2.8	0.07	64.4	65.5	67.1	69.0	70.8	72.6	73.6
18-24 years-----	772	11,753	69.7	2.8	0.18	65.1	66.1	67.8	69.7	71.5	73.4	74.4
25-34 years-----	804	13,002	69.6	2.9	0.12	64.8	66.0	67.6	69.5	71.5	73.4	74.3
35-44 years-----	665	10,692	69.1	2.7	0.13	64.7	65.8	67.3	69.2	71.1	72.6	73.4
45-54 years-----	765	11,150	68.9	2.6	0.13	64.7	65.6	67.1	68.8	70.6	72.4	73.2
55-64 years-----	597	8,998	68.3	2.6	0.16	64.1	65.1	66.7	68.2	70.1	71.7	72.5
65-74 years-----	1,657	5,496	67.3	2.6	0.08	63.2	64.2	65.6	67.3	69.1	70.6	71.6
<u>Women</u>												
18-74 years---	8,411	67,925	63.6	2.5	0.04	59.5	60.5	62.0	63.7	65.3	66.8	67.8
18-24 years-----	1,524	12,924	64.3	2.5	0.08	60.2	61.2	62.6	64.3	65.8	67.4	68.4
25-34 years-----	1,896	13,933	64.1	2.4	0.08	60.2	61.2	62.4	64.0	65.7	67.3	68.2
35-44 years-----	1,663	11,576	64.1	2.5	0.09	59.9	60.8	62.3	64.1	65.7	67.3	68.4
45-54 years-----	836	12,163	63.6	2.3	0.10	59.9	60.6	62.1	63.7	65.2	66.7	67.3
55-64 years-----	670	10,052	62.8	2.4	0.10	58.6	59.6	61.2	62.8	64.5	65.6	66.6
65-74 years-----	1,822	7,277	62.3	2.4	0.08	58.2	59.3	60.8	62.3	63.9	65.3	66.2

NOTE: Height was measured without shoes.

Table 16. Estimated number of white men aged 18-74 years, by age and height: United States, 1971-74

Height in inches	Age of white men						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
Estimated number in thousands							
All heights-----	54,606	10,271	11,594	9,532	10,039	8,200	4,970
Less than 60-----	75	-	-	7	18	20	30
60-----	129	39	-	26	3	23	38
61-----	119	5	11	35	26	10	32
62-----	534	122	13	30	141	120	108
63-----	1,003	67	230	165	170	172	199
64-----	1,737	141	205	269	241	425	456
65-----	3,392	469	432	446	698	694	653
66-----	5,399	765	1,107	881	930	1,028	688
67-----	6,524	976	1,123	1,044	1,354	1,299	728
68-----	7,537	1,340	1,232	1,508	1,537	1,172	748
69-----	7,858	1,520	1,860	1,390	1,461	1,138	489
70-----	6,855	1,592	1,632	1,247	1,251	714	419
71-----	5,002	1,133	1,112	1,062	737	792	166
72-----	3,850	757	1,039	735	829	314	176
73-----	2,652	681	890	465	413	180	23
74-----	1,005	292	336	120	170	70	17
75-----	385	112	155	72	41	5	-
76 or more-----	548	260	216	30	18	24	-

Table 17. Estimated number of black men aged 18-74 years, by age and height: United States, 1971-74

Height in inches	Age of black men						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
	Estimated number in thousands						
All heights-----	5,753	1,270	1,232	1,005	1,057	703	486
Less than 60-----	2	-	-	-	-	-	2
60-----	16	-	-	14	-	-	2
61-----	23	-	-	12	3	-	8
62-----	74	25	-	27	-	12	10
63-----	124	25	35	9	31	4	20
64-----	366	61	141	22	50	58	34
65-----	393	41	80	75	65	63	69
66-----	504	86	103	49	146	62	58
67-----	953	138	178	169	236	139	93
68-----	662	145	119	95	170	72	61
69-----	747	132	186	147	119	98	65
70-----	643	174	116	96	90	127	40
71-----	493	210	80	65	80	42	16
72-----	416	114	102	147	40	10	3
73-----	155	83	41	-	12	15	4
74-----	149	37	29	79	3	-	1
75-----	32	-	22	-	9	-	1
76 or more-----	3	-	-	-	3	-	-

Table 18. Estimated number of white women aged 18-74 years, by age and height: United States, 1971-74

Height in inches	Age of white women						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
	Estimated number in thousands						
All heights-----	60,011	11,161	12,161	10,095	10,879	9,112	6,603
Less than 55-----	29	10	6	4	-	-	9
55-----	123	4	17	7	-	68	27
56-----	210	16	-	27	42	76	49
57-----	484	53	78	22	23	124	184
58-----	913	127	120	63	50	278	275
59-----	2,144	208	260	306	454	479	437
60-----	4,036	420	464	581	886	847	838
61-----	6,745	901	1,249	889	1,186	1,471	1,049
62-----	8,881	1,418	1,793	1,409	1,693	1,394	1,174
63-----	9,139	1,712	1,916	1,448	1,657	1,463	943
64-----	8,924	1,713	1,694	1,567	1,902	1,339	709
65-----	8,026	1,870	1,788	1,641	1,302	914	511
66-----	4,796	1,112	1,258	901	925	369	231
67-----	2,761	797	739	580	405	164	76
68-----	1,633	395	489	393	207	73	76
69-----	654	226	152	146	82	33	15
70-----	303	95	98	62	31	17	-
71 or more-----	211	84	40	49	34	4	-

Table 19. Estimated number of black women aged 18-74 years, by age and height: United States, 1971-74

Height in inches	Age of black women						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
All heights-----	7,302	1,578	1,646	1,318	1,237	871	652
Less than 55-----	-	-	-	-	-	-	-
55-----	32	-	-	-	-	32	-
56-----	3	-	2	-	-	-	1
57-----	41	17	2	4	3	-	15
58-----	109	15	33	13	-	26	22
59-----	236	25	33	55	28	54	41
60-----	470	103	54	86	117	48	62
61-----	717	131	188	59	72	142	125
62-----	1,197	247	267	125	256	171	131
63-----	1,116	240	293	206	182	107	88
64-----	1,176	247	223	323	215	99	69
65-----	1,010	274	250	189	145	93	59
66-----	509	126	123	76	106	59	19
67-----	353	71	102	57	83	25	15
68-----	187	36	50	65	22	12	2
69-----	89	17	10	50	8	4	-
70-----	43	17	15	11	-	-	-
71 or more-----	14	11	-	-	-	-	3

Table 20. Percent distribution of white adults aged 18-74 years by sex and height, according to age: United States, 1971-74

Sex and height in inches	Age of white adults						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
<u>Men</u>							
Percent distribution							
All heights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 60-----	0.14	-	-	0.07	0.18	0.24	0.61
60-----	0.24	0.40	-	0.28	0.0	0.28	0.76
61-----	0.22	0.06	0.09	0.37	0.25	0.12	0.65
62-----	0.99	1.21	0.12	0.31	1.41	1.47	2.18
63-----	1.84	0.63	1.98	1.73	1.69	2.09	4.00
64-----	3.19	1.35	1.77	2.83	2.40	5.18	9.18
65-----	6.24	4.58	3.72	4.68	6.96	8.47	13.14
66-----	9.93	7.61	9.56	9.25	9.27	12.53	13.83
67-----	11.94	9.32	9.68	10.96	13.48	15.85	14.66
68-----	13.82	12.91	10.63	15.80	15.32	14.29	15.04
69-----	14.38	14.84	16.03	14.59	14.55	13.88	9.84
70-----	12.51	15.42	14.07	13.09	12.46	8.70	8.42
71-----	9.18	11.18	9.59	11.15	7.34	9.66	3.34
72-----	7.05	7.35	8.97	7.72	8.26	3.84	3.55
73-----	4.79	6.49	7.68	4.85	4.11	2.19	0.45
74-----	1.84	2.90	2.91	1.25	1.70	0.85	0.35
75-----	0.70	1.10	1.33	0.76	0.41	0.06	-
76 or more-----	1.00	2.65	1.87	0.31	0.18	0.30	-
<u>Women</u>							
All heights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 55-----	0.05	0.09	0.05	0.0	-	-	0.13
55-----	0.20	0.0	0.14	0.07	-	0.75	0.41
56-----	0.35	0.15	-	0.27	0.38	0.83	0.75
57-----	0.81	0.48	0.65	0.22	0.22	1.36	2.78
58-----	1.52	1.14	0.98	0.63	0.45	3.06	4.16
59-----	3.59	1.90	2.14	3.03	4.18	5.27	6.62
60-----	6.77	3.84	3.81	5.75	8.15	9.29	12.69
61-----	11.27	8.14	10.28	8.81	10.90	16.14	15.88
62-----	14.83	12.75	14.74	13.95	15.56	15.29	17.79
63-----	15.22	15.33	15.76	14.35	15.23	16.05	14.29
64-----	14.88	15.40	13.93	15.52	17.48	14.69	10.73
65-----	13.32	16.57	14.70	16.25	11.96	10.03	7.75
66-----	7.98	9.97	10.33	8.93	8.51	4.05	3.48
67-----	4.58	7.13	6.08	5.74	3.72	1.80	1.15
68-----	2.72	3.53	4.03	3.90	1.90	0.80	1.16
69-----	1.07	1.99	1.24	1.45	0.76	0.36	0.23
70-----	0.50	0.83	0.81	0.61	0.29	0.19	-
71 or more-----	0.34	0.72	0.33	0.48	0.31	0.0	-

NOTE: Percents may not add to 100.00 due to rounding.

Table 21. Percent distribution of black adults aged 18-74 years by sex and height, according to age: United States, 1971-74

Sex and height in inches	Age of black adults						
	All ages 18-74 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years
<u>Men</u>		Percent distribution					
All heights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 60-----	0.0	-	-	-	-	-	0.38
60-----	0.24	-	-	1.42	-	-	0.42
61-----	0.38	-	-	1.21	0.30	-	1.72
62-----	1.20	2.00	-	2.65	-	1.73	2.00
63-----	2.18	1.83	2.86	0.85	2.91	0.56	4.10
64-----	6.60	4.80	11.46	2.16	4.70	8.26	6.98
65-----	6.74	3.11	6.48	7.44	6.18	8.95	14.13
66-----	8.93	6.95	8.33	5.25	13.55	8.80	11.92
67-----	16.43	10.48	14.43	16.72	22.43	19.84	19.16
68-----	11.54	11.28	9.67	9.41	16.15	10.31	12.57
69-----	12.97	10.55	15.05	14.54	11.29	13.92	13.32
70-----	11.15	13.66	9.43	9.48	8.57	18.10	8.31
71-----	8.62	16.60	6.48	6.46	7.56	5.96	3.23
72-----	7.09	9.13	8.33	14.59	3.81	1.49	0.67
73-----	2.82	6.61	3.33	-	1.13	2.08	0.81
74-----	2.43	3.00	2.39	7.82	0.26	-	0.16
75-----	0.59	-	1.76	-	0.85	-	0.12
76 or more-----	0.06	-	-	-	0.31	-	-
<u>Women</u>		Percent distribution					
All heights-----	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 55-----	-	-	-	-	-	-	-
55-----	0.49	-	-	-	-	3.69	-
56-----	0.04	-	0.10	-	-	-	0.15
57-----	0.57	1.11	0.12	0.27	0.27	-	2.26
58-----	1.53	0.96	2.02	0.97	-	3.02	3.40
59-----	3.33	1.63	2.11	4.14	2.30	6.22	6.26
60-----	6.48	6.64	3.40	6.54	9.44	5.50	9.50
61-----	9.92	8.40	11.41	4.45	5.81	16.40	19.03
62-----	16.30	15.53	16.23	9.47	20.67	19.39	20.31
63-----	15.22	15.27	17.77	15.63	14.70	12.33	13.50
64-----	16.07	15.57	13.53	24.50	17.40	11.27	10.62
65-----	13.73	17.00	15.16	14.34	11.74	10.71	8.97
66-----	6.94	8.00	7.46	5.76	8.56	6.79	2.95
67-----	4.78	4.61	6.16	4.36	6.73	2.88	2.29
68-----	2.56	2.30	3.02	4.90	1.76	1.39	0.32
69-----	1.24	1.14	0.60	3.82	0.62	0.41	-
70-----	0.60	1.11	0.91	0.85	-	-	-
71 or more-----	0.20	0.73	-	-	-	-	0.44

NOTE: Percents may not add to 100.00 due to rounding.

Table 22. Height in inches of adults aged 18-74 years, by sex, race, and age: sample size, estimated population in thousands, mean, standard deviation, standard error of the mean, and selected percentiles: United States, 1971-74

Sex, race, and age	Sample size	Estimated population in thousands	Mean	Standard deviation	Standard error of the mean	Percentile						
						5th	10th	25th	50th	75th	90th	95th
<u>MEN</u>												
<u>White</u>												
18-74 years-----	4,343	54,606	69.1	2.8	0.08	64.6	65.6	67.2	69.1	70.9	72.7	73.6
18-24 years-----	625	10,271	69.8	2.8	0.20	65.3	66.3	67.9	69.8	71.4	73.4	74.5
25-34 years-----	672	11,594	69.7	2.8	0.13	65.3	66.3	67.7	69.7	71.7	73.4	74.3
35-44 years-----	570	9,532	69.2	2.6	0.13	64.8	65.9	67.5	69.3	71.1	72.6	73.4
45-54 years-----	628	10,039	68.9	2.6	0.14	64.7	65.6	67.2	68.9	70.7	72.5	73.3
55-64 years-----	504	8,200	68.3	2.6	0.17	64.2	65.1	66.7	68.2	70.1	71.7	72.5
65-74 years-----	1,344	4,970	67.3	2.6	0.09	63.2	64.2	65.6	67.3	69.1	70.6	71.7
<u>Black</u>												
18-74 years-----	847	5,753	68.6	2.8	0.16	64.1	64.8	66.8	68.6	70.6	72.4	73.3
18-24 years-----	132	1,270	69.5	2.8	0.45	64.6	65.3	67.4	69.8	71.7	72.9	73.6
25-34 years-----	119	1,232	68.6	2.9	0.38	64.1	64.4	66.6	68.6	70.6	72.6	73.7
35-44 years-----	87	1,005	69.1	3.1	0.44	62.4	65.6	67.2	69.2	71.3	72.8	74.3
45-54 years-----	130	1,057	68.2	2.4	0.26	64.5	65.4	66.6	67.9	69.5	71.3	72.3
55-64 years-----	85	703	68.2	2.3	0.32	64.1	64.4	66.6	68.1	70.1	70.9	71.8
65-74 years-----	294	486	67.3	2.4	0.18	63.1	64.2	65.6	67.5	69.1	70.2	70.9
<u>WOMEN</u>												
<u>White</u>												
18-74 years-----	6,758	60,011	63.7	2.5	0.05	59.5	60.6	62.0	63.7	65.3	66.8	67.8
18-24 years-----	1,165	11,161	64.3	2.5	0.09	60.3	61.3	62.7	64.3	65.9	67.4	68.4
25-34 years-----	1,539	12,161	64.1	2.5	0.08	60.2	61.2	62.4	64.1	65.8	67.3	68.3
35-44 years-----	1,301	10,095	64.1	2.5	0.09	60.1	60.9	62.4	64.1	65.7	67.3	68.4
45-54 years-----	705	10,879	63.6	2.4	0.11	59.9	60.6	62.0	63.7	65.2	66.7	67.3
55-64 years-----	552	9,112	62.8	2.4	0.11	58.6	59.7	61.2	62.8	64.5	65.6	66.6
65-74 years-----	1,496	6,603	62.3	2.4	0.09	58.2	59.2	60.7	62.3	63.9	65.3	66.2
<u>Black</u>												
18-74 years-----	1,557	7,302	63.7	2.5	0.09	59.6	60.6	62.1	63.7	65.3	66.8	67.8
18-24 years-----	329	1,578	64.0	2.4	0.20	60.2	60.9	62.4	64.0	65.4	66.9	68.1
25-34 years-----	335	1,646	63.9	2.3	0.20	60.2	61.2	62.3	63.7	65.3	67.1	67.8
35-44 years-----	334	1,318	64.2	2.5	0.19	59.8	60.7	62.8	64.3	65.6	67.7	68.8
45-54 years-----	126	1,237	63.8	2.2	0.30	60.2	60.7	62.3	63.6	65.6	66.8	67.6
55-64 years-----	115	871	62.8	2.6	0.24	58.4	59.5	61.3	62.8	64.7	66.2	66.9
65-74 years-----	318	652	62.6	2.4	0.18	58.7	59.6	61.2	62.5	64.1	65.5	66.2

NOTE: Height was measured without shoes.

Table 23. Comparison of mean heights and weights in HES (1960-62) and HANES (1971-74), by sex and age: United States

Age	Sex and height									
	Men					Women				
	1960-62		1971-74		Excess of HANES over HES	1960-62		1971-74		Excess of HANES over HES
	Number of examined persons	Mean height in inches	Number of examined persons	Mean height in inches		Number of examined persons	Mean height in inches	Number of examined persons	Mean height in inches	
18-74 years-----	3,019	68.3	5,260	69.0	+0.7	3,511	63.1	8,411	63.6	+0.5
18-24 years-----	411	68.7	772	69.7	+1.0	534	63.8	1,524	64.3	+0.5
25-34 years-----	675	69.1	804	69.6	+0.5	746	63.7	1,896	64.1	+0.4
35-44 years-----	703	68.5	665	69.1	+0.6	784	63.5	1,663	64.1	+0.6
45-54 years-----	547	68.2	765	68.9	+0.7	705	62.9	836	63.6	+0.7
55-64 years-----	418	67.4	597	68.3	+0.9	443	62.4	670	62.8	+0.4
65-74 years-----	265	66.9	1,657	67.3	+0.4	299	61.5	1,822	62.3	+0.8

Age	Sex and weight									
	Men					Women				
	1960-62		1971-74		Excess of HANES over HES	1960-62		1971-74		Excess of HANES over HES
	Number of examined persons	Mean weight in pounds	Number of examined persons	Mean weight in pounds		Number of examined persons	Mean weight in pounds	Number of examined persons	Mean weight in pounds	
18-74 years-----	3,019	166	5,260	172	+6	3,511	140	8,411	143	+3
18-24 years-----	411	158	772	165	+7	534	127	1,524	132	+5
25-34 years-----	675	169	804	176	+7	746	134	1,896	140	+6
35-44 years-----	703	170	665	178	+8	784	142	1,663	148	+6
45-54 years-----	547	170	765	175	+5	705	145	836	149	+4
55-64 years-----	418	164	597	171	+7	443	150	670	149	-1
65-74 years-----	265	158	1,657	164	+6	299	144	1,822	146	+2

NOTE: Height was measured without shoes. 2 lbs. are deducted from HES data to allow for weight of clothing; total weights of all clothing for HANES ranged from 0.20 to 0.62 lb., which is not deducted from weights shown.





Table 26. Cumulative percent distribution of weight in pounds of white men in HES (1960-62) and HANES (1971-74), by age: United States

Weight in pounds	Age of white men													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 100-----	0.27	0.15	-	-	0.08	-	-	-	0.25	0.09	0.33	0.65	1.44	0.37
Under 110-----	0.60	0.83	-	0.59	0.08	0.21	0.46	0.21	0.45	0.90	0.61	2.04	2.74	1.76
Under 120-----	2.04	1.89	2.08	2.21	2.06	0.45	0.78	0.63	1.21	1.83	2.38	3.67	5.41	4.25
Under 130-----	6.02	5.50	8.51	6.97	4.71	3.03	2.57	4.03	4.08	5.32	8.71	6.64	11.86	9.56
Under 140-----	13.39	11.14	18.63	16.14	11.61	8.23	8.93	7.53	9.95	9.16	15.61	12.61	21.91	16.59
Under 150-----	25.34	20.75	37.18	31.18	23.06	18.22	18.05	13.51	19.85	16.57	26.14	21.42	37.56	27.61
Under 160-----	39.53	34.56	52.66	47.89	36.19	34.07	33.52	24.35	34.28	28.21	40.37	33.09	49.07	44.87
Under 170-----	54.61	49.15	67.75	63.69	50.07	45.77	49.53	40.48	47.35	42.61	55.38	48.05	68.01	60.22
Under 180-----	67.91	63.30	79.37	73.78	63.53	59.24	64.33	54.59	61.86	57.24	68.84	67.22	77.88	74.93
Under 190-----	79.22	75.42	88.21	81.76	75.62	71.31	76.89	69.85	75.87	71.47	79.26	79.29	84.84	84.94
Under 200-----	86.94	84.05	91.23	88.38	84.44	80.72	85.62	80.71	84.76	82.29	87.59	85.35	91.61	91.09
Under 210-----	92.41	89.73	93.47	91.56	91.20	86.86	91.61	89.98	90.49	87.42	93.80	91.01	96.32	94.73
Under 220-----	95.95	93.60	95.66	94.48	94.27	90.99	95.66	92.65	95.67	93.32	97.38	94.94	98.35	98.00
Under 230-----	98.04	96.46	98.83	97.04	96.46	94.72	97.86	96.38	97.61	96.42	98.95	96.97	99.75	98.66
Under 240-----	98.89	97.76	99.16	98.70	98.36	96.13	98.67	97.08	98.89	98.17	99.09	98.33	99.76	99.13
Under 250-----	99.52	98.49	99.76	99.40	99.07	96.98	99.50	97.92	99.76	98.85	99.23	99.05	100.00	99.43

Table 27. Cumulative percent distribution of weight in pounds of black men in HES (1960-62) and HANES (1971-74), by age: United States

Height in inches	Age of black men													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 100-----	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.19
Under 110-----	0.98	0.23	-	0.21	-	-	-	-	1.11	0.30	-	0.62	9.67	0.68
Under 120-----	3.38	3.14	-	2.76	1.26	3.83	0.85	1.76	2.56	1.67	7.69	5.49	16.91	4.58
Under 130-----	7.57	6.74	10.36	8.43	6.26	6.60	0.85	4.92	5.22	3.08	13.42	6.98	21.87	13.63
Under 140-----	18.39	17.95	26.50	18.23	17.48	15.95	9.70	14.66	13.99	21.03	25.92	13.17	30.43	28.13
Under 150-----	32.76	32.81	44.15	37.20	27.81	29.70	17.69	24.42	27.46	33.51	50.81	34.35	50.21	40.44
Under 160-----	48.56	46.00	64.68	51.79	42.33	46.85	34.24	23.72	45.14	44.57	60.59	48.13	63.56	55.95
Under 170-----	61.06	59.96	79.12	67.09	51.18	59.44	39.69	40.25	63.63	64.86	72.57	58.09	85.80	67.47
Under 180-----	72.41	70.06	84.27	79.67	63.94	68.67	64.10	49.87	72.37	72.42	76.03	70.86	88.36	76.20
Under 190-----	83.16	75.66	98.07	86.24	69.51	72.55	79.31	55.07	81.53	78.38	86.19	77.89	97.55	82.07
Under 200-----	88.16	83.15	98.07	88.51	77.77	82.88	86.24	73.81	87.38	83.40	90.36	80.18	97.55	89.00
Under 210-----	93.50	87.47	100.00	91.63	87.56	85.18	93.14	81.66	90.64	88.10	95.92	86.91	100.00	92.12
Under 220-----	94.82	90.99	100.00	94.46	92.69	90.40	93.14	88.02	92.46	89.76	95.92	86.91	100.00	96.90
Under 230-----	97.64	92.36	100.00	95.03	97.21	91.25	94.34	88.02	98.79	94.76	98.06	86.91	100.00	97.92
Under 240-----	98.83	95.15	100.00	95.03	98.55	95.61	98.44	93.59	98.79	96.71	98.06	90.90	100.00	99.15
Under 250-----	99.36	95.86	100.00	95.03	100.00	95.61	98.44	93.59	98.79	97.41	98.06	95.80	100.00	99.15



Table 30. Percent of adults aged 18-74 years above selected weights in HES (1960-62) and HANES (1971-74), by age, sex, and race: United States

Sex and race	Age of adults													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
<b>Men</b>														
Percent 160 pounds or more														
Total <sup>1</sup> -----	59.4	63.7	45.4	50.7	62.2	63.6	66.0	74.6	64.4	70.1	56.9	65.2	51.9	54.0
White-----	60.5	65.4	47.3	52.1	63.8	65.9	66.5	75.6	65.7	71.8	59.6	66.9	50.9	55.1
Black-----	51.4	54.0	35.3	48.2	57.7	53.1	65.8	70.3	54.9	55.4	39.4	51.9	36.4	44.0
Percent 170 pounds or more														
Total <sup>1</sup> -----	44.7	49.4	30.7	35.3	49.0	52.0	51.3	59.1	50.9	55.2	42.2	51.0	31.8	39.1
White-----	45.4	50.8	32.2	36.3	49.9	54.2	50.5	59.5	52.6	57.4	44.6	51.9	32.0	39.8
Black-----	38.9	40.0	20.9	32.9	48.8	40.6	60.3	59.7	36.4	35.1	27.4	41.9	14.2	32.5
<b>Women</b>														
Percent 140 pounds or more														
Total <sup>1</sup> -----	45.2	45.1	25.5	27.8	33.3	37.0	45.4	48.2	55.4	54.7	59.5	55.1	57.0	54.4
White-----	43.6	43.7	25.0	26.7	30.9	35.5	43.1	45.7	53.5	53.1	56.9	53.5	55.9	53.5
Black-----	57.0	58.5	29.2	35.4	50.6	50.8	58.2	70.8	70.3	72.2	83.6	71.4	55.1	65.8
Percent 150 pounds or more														
Total <sup>1</sup> -----	31.3	33.1	13.9	17.8	21.4	26.6	32.9	36.2	38.3	41.5	43.7	43.0	41.5	38.8
White-----	29.3	31.4	12.8	16.7	18.6	24.9	30.1	33.4	35.9	39.2	41.0	41.1	40.3	37.5
Black-----	46.8	48.4	21.2	25.0	40.0	41.5	50.9	59.8	55.8	64.7	70.8	60.4	47.9	52.5
Percent 170 pounds or more														
Total <sup>1</sup> -----	16.1	16.8	5.0	7.9	10.8	15.1	16.9	20.1	20.8	19.9	25.6	21.3	18.9	18.5
White-----	14.3	15.3	4.4	6.9	9.3	13.9	14.4	17.9	18.0	17.9	22.9	19.4	18.0	17.4
Black-----	30.3	30.0	8.3	14.4	22.1	25.1	35.0	38.9	40.4	39.8	52.1	40.0	26.5	30.3

<sup>1</sup>Includes all races.

Table 31. Cumulative percent distribution of height in inches of men in HES (1960-62) and HANES (1971-74), by age: United States

Height in inches	Age of men													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 60-----	0.1	0.1	-	-	-	0.0	0.1	0.1	0.2	0.2	-	0.2	0.7	0.6
Under 61-----	0.3	0.4	-	0.4	0.1	0.2	0.2	0.4	0.4	0.2	0.5	0.5	1.1	1.3
Under 62-----	1.0	0.7	0.2	0.4	0.2	0.3	0.5	0.9	0.7	0.5	2.8	0.6	3.2	2.1
Under 63-----	2.6	1.7	1.5	1.7	1.5	0.4	1.9	1.6	1.8	1.7	5.2	2.1	5.7	4.4
Under 64-----	5.6	3.7	3.7	2.7	3.1	2.5	3.8	3.4	4.8	3.6	12.3	4.2	9.0	8.4
Under 65-----	12.4	7.3	7.7	4.5	7.8	5.6	8.7	6.2	11.4	6.2	23.1	9.6	23.4	17.9
Under 66-----	19.1	13.6	12.8	9.2	12.2	9.8	14.8	11.1	19.1	13.1	30.3	18.0	35.7	30.7
Under 67-----	32.1	23.5	28.6	16.9	22.1	19.2	27.0	20.4	31.5	22.7	43.1	30.1	54.2	44.3
Under 68-----	44.0	35.9	41.3	26.4	33.0	29.3	38.6	31.8	44.3	37.1	55.4	46.1	65.4	59.3
Under 69-----	62.1	49.5	56.1	39.0	50.4	40.1	57.8	47.0	65.0	52.6	72.9	60.7	82.0	74.1
Under 70-----	72.5	63.7	68.7	53.2	62.4	55.8	69.6	61.4	74.3	66.9	81.3	74.5	88.4	84.3
Under 71-----	84.5	76.0	81.0	68.5	76.6	69.2	84.0	74.1	86.4	78.9	89.8	83.8	95.4	92.6
Under 72-----	90.8	85.0	86.2	80.1	84.4	78.4	92.9	84.7	91.5	86.2	94.3	93.1	99.0	95.9
Under 73-----	96.2	92.0	94.7	87.5	92.4	87.1	97.3	92.9	96.7	94.0	98.4	96.7	99.6	99.2
Under 74-----	98.4	96.6	97.8	93.9	95.7	94.2	98.9	97.3	99.0	97.8	99.6	98.9	100.0	99.7
Under 75-----	99.5	98.4	99.2	96.8	98.8	97.0	99.8	99.0	99.6	99.4	99.8	99.7	100.0	100.0
Under 76-----	99.7	99.1	99.8	97.7	99.0	98.4	100.0	99.7	99.9	99.8	99.8	99.7	100.0	100.0

Table 32. Cumulative percent distribution of height in inches of women in HES (1960-62) and HANES (1971-74), by age: United States

Height in inches	Age of women													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 55-----	0.2	0.1	-	0.1	-	0.0	0.1	0.0	0.2	0.0	0.6	0.0	-	0.2
Under 56-----	0.4	0.3	-	0.1	0.1	0.2	0.1	0.1	0.5	0.0	1.0	1.0	1.3	0.6
Under 57-----	0.7	0.6	0.1	0.3	0.3	0.2	0.5	0.3	0.5	0.4	1.6	1.8	2.0	1.2
Under 58-----	2.3	1.4	0.3	0.8	0.9	0.8	1.3	0.6	2.2	0.6	3.3	3.0	8.3	4.0
Under 59-----	4.4	3.0	2.1	2.1	1.6	1.9	2.2	1.5	4.0	1.0	7.3	6.2	13.9	8.1
Under 60-----	10.8	6.8	5.1	4.1	6.7	4.0	6.9	5.2	11.5	5.1	14.9	11.8	27.5	14.8
Under 61-----	18.5	13.5	12.0	8.5	12.2	7.8	14.1	11.2	20.8	13.4	22.9	20.7	38.4	27.2
Under 62-----	32.8	24.6	24.6	16.6	22.4	18.2	27.2	19.5	34.0	23.7	43.5	36.7	58.0	43.3
Under 63-----	50.7	39.6	40.1	29.8	42.0	33.1	43.8	32.9	55.2	39.9	62.2	52.3	72.1	61.3
Under 64-----	63.2	54.8	51.3	45.0	53.5	49.3	57.6	47.2	68.1	55.0	76.3	67.9	82.9	75.5
Under 65-----	78.8	69.7	70.6	60.3	71.7	63.2	75.4	63.6	82.5	72.4	87.0	82.1	92.6	86.2
Under 66-----	87.1	83.0	81.2	76.7	83.1	77.9	83.9	79.4	89.4	84.4	92.4	92.4	97.5	94.0
Under 67-----	94.8	90.8	91.9	86.5	93.9	87.8	94.6	87.8	94.4	92.9	96.4	96.7	99.0	97.4
Under 68-----	97.2	95.4	95.3	93.3	97.2	93.9	97.0	93.3	97.2	96.8	98.1	98.6	99.2	98.7
Under 69-----	99.3	98.1	98.8	96.6	99.0	97.7	99.1	97.3	99.8	98.7	99.4	99.4	99.8	99.8
Under 70-----	99.6	99.2	99.5	98.4	99.3	98.9	99.8	99.0	99.9	99.5	99.4	99.8	99.8	100.0
Under 71-----	99.9	99.7	99.9	99.3	99.6	99.7	99.9	99.6	99.9	99.7	100.0	100.0	100.0	100.0

Table 33. Cumulative percent distribution of height in inches of white men in HES (1960-62) and HANES (1971-74), by age: United States

Height in inches	Age of white men													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 60-----	0.1	0.1	-	-	-	-	-	0.1	0.3	0.2	-	0.2	0.7	0.6
Under 61-----	0.3	0.4	-	0.4	0.1	-	-	0.4	0.4	0.2	0.6	0.5	1.1	1.4
Under 62-----	1.1	0.6	-	0.5	0.3	0.1	0.4	0.7	0.8	0.5	2.7	0.6	4.0	2.0
Under 63-----	2.7	1.6	1.4	1.7	1.3	0.2	1.8	1.0	1.9	1.9	4.6	2.1	7.2	4.2
Under 64-----	5.6	3.4	3.9	2.3	2.6	2.2	3.7	2.8	5.0	3.6	11.2	4.2	10.8	8.2
Under 65-----	12.4	6.6	7.3	3.7	7.4	4.0	8.3	5.6	11.6	6.0	21.7	9.4	25.0	17.4
Under 66-----	18.7	12.9	11.7	8.2	11.3	7.7	13.5	10.3	18.7	12.9	29.0	17.9	37.4	30.5
Under 67-----	31.2	22.8	26.9	15.8	19.5	17.2	25.0	19.5	31.5	22.2	41.0	30.4	56.4	44.4
Under 68-----	42.5	34.7	39.8	25.2	29.8	26.9	36.6	30.5	42.4	35.7	52.9	46.2	66.8	59.0
Under 69-----	60.7	48.6	54.9	38.1	47.7	37.6	56.4	46.3	63.2	51.0	70.6	60.5	82.1	74.1
Under 70-----	71.4	62.9	67.6	52.9	59.8	53.6	68.7	60.9	73.3	65.5	79.5	74.4	88.1	83.9
Under 71-----	83.9	75.4	80.4	68.3	74.6	67.7	83.4	74.0	86.2	78.0	88.7	83.1	95.3	92.3
Under 72-----	90.4	84.6	86.3	79.5	83.1	77.2	92.6	85.1	91.1	85.3	93.8	92.8	98.6	95.7
Under 73-----	96.0	91.7	94.4	86.9	91.9	86.2	96.9	92.8	96.7	93.6	98.2	96.6	99.6	99.2
Under 74-----	98.2	96.5	97.5	93.4	95.3	93.9	98.8	97.7	98.9	97.7	99.5	98.8	100.0	99.7
Under 75-----	99.4	98.3	99.1	96.3	98.6	96.8	99.7	98.9	99.5	99.4	99.8	99.6	100.0	100.0
Under 76-----	99.7	99.0	99.8	97.4	98.9	98.1	100.0	99.7	99.8	99.8	99.8	99.7	100.0	100.0

Table 34. Cumulative percent distribution of height in inches of black men in HES (1960-62) and HANES (1971-74), by age: United States

Height in inches	Age of black men													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 60-----	0.2	-	-	-	-	-	0.9	-	-	-	-	-	-	0.4
Under 61-----	0.4	0.3	-	-	-	-	1.6	1.4	-	-	-	-	-	0.8
Under 62-----	1.1	0.7	1.5	-	-	-	1.6	2.6	-	0.3	1.9	-	3.4	2.5
Under 63-----	3.1	1.9	2.7	2.0	0.8	-	2.9	5.3	0.7	0.3	10.1	1.7	3.4	4.5
Under 64-----	5.3	4.0	2.7	3.8	0.8	2.9	6.1	6.1	3.7	3.2	14.5	2.3	5.9	8.6
Under 65-----	12.7	10.6	8.7	8.6	4.2	14.3	10.5	8.3	10.1	7.9	28.9	10.6	23.5	15.6
Under 66-----	20.6	17.4	18.1	11.7	7.8	20.8	22.8	15.7	19.9	14.1	33.1	19.5	27.3	29.7
Under 67-----	37.6	26.3	33.8	18.7	32.1	29.1	36.3	21.0	30.4	27.6	54.3	28.3	51.2	41.7
Under 68-----	53.7	42.7	44.9	29.2	45.8	43.6	46.9	37.7	57.1	50.1	72.4	48.1	64.6	60.8
Under 69-----	70.8	54.3	58.5	40.5	63.3	53.2	63.6	47.1	75.1	66.2	89.6	58.5	86.4	73.4
Under 70-----	79.3	67.2	71.5	51.0	76.3	68.3	72.7	61.7	78.7	77.5	94.1	72.4	94.8	86.7
Under 71-----	88.7	78.4	82.4	64.7	88.0	77.7	86.7	71.1	86.3	86.1	98.3	90.5	97.5	95.0
Under 72-----	93.0	87.0	83.5	81.3	90.3	84.2	95.6	77.6	93.0	93.6	98.3	96.4	100.0	98.2
Under 73-----	97.4	94.1	96.0	90.4	93.9	92.5	100.0	92.2	95.9	97.5	100.0	97.9	100.0	99.9
Under 74-----	99.7	96.9	100.0	97.0	98.4	95.9	100.0	92.2	100.0	98.6	100.0	100.0	100.0	99.7
Under 75-----	100.0	99.4	100.0	100.0	100.0	98.2	100.0	100.0	100.0	98.8	100.0	100.0	100.0	99.9
Under 76-----	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	100.0	100.0	100.0	100.0

Table 35. Cumulative percent distribution of height in inches of white women in HES (1960-62) and HANES (1971-74), by age: United States

Height in inches	Age of white women													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 55-----	0.2	0.1	-	0.1	-	0.1	0.2	-	0.2	-	0.5	-	-	0.1
Under 56-----	0.5	0.3	-	0.1	0.2	0.2	0.2	0.1	0.6	-	1.0	0.8	1.4	0.5
Under 57-----	0.7	0.6	0.1	0.3	0.4	0.2	0.5	0.4	0.6	0.4	1.4	1.6	1.8	1.3
Under 58-----	2.2	1.4	0.4	0.8	0.9	0.8	1.1	0.6	1.9	0.6	3.1	2.9	8.3	4.1
Under 59-----	4.3	2.9	1.9	1.9	1.6	1.8	1.7	1.2	3.6	1.1	7.1	6.0	13.9	8.2
Under 60-----	10.6	6.5	4.6	3.8	6.2	4.0	6.0	4.3	11.3	5.2	14.9	11.3	27.4	14.9
Under 61-----	18.2	13.3	10.6	7.6	11.4	7.8	13.1	10.0	20.6	13.4	23.3	20.6	38.0	27.5
Under 62-----	32.5	24.6	23.7	15.8	21.4	18.1	26.5	18.8	32.8	24.3	43.6	36.7	58.0	43.4
Under 63-----	50.3	39.4	40.3	28.5	40.7	32.8	42.2	32.8	54.2	39.8	61.9	52.0	72.2	61.2
Under 64-----	63.2	54.6	51.6	43.9	52.5	48.6	56.6	47.1	68.0	55.1	76.7	68.0	82.8	75.5
Under 65-----	78.5	69.5	70.4	59.3	70.4	62.5	74.9	62.6	82.2	72.6	87.0	82.7	92.3	86.2
Under 66-----	86.9	82.8	80.9	75.8	82.3	77.2	83.8	78.9	89.3	84.5	92.3	92.8	97.1	94.0
Under 67-----	94.8	90.8	91.7	85.8	93.9	87.5	94.8	87.8	94.5	93.0	96.6	96.8	98.7	97.5
Under 68-----	97.3	95.4	95.5	92.9	97.3	93.6	97.4	93.6	96.9	96.7	98.5	98.6	98.8	98.6
Under 69-----	99.4	98.1	98.9	96.5	99.1	97.6	99.1	97.5	99.7	98.6	99.8	99.4	99.8	99.8
Under 70-----	99.7	99.2	99.6	98.5	99.4	98.9	99.8	98.9	99.9	99.4	99.8	99.8	99.8	100.0
Under 71-----	99.9	99.7	100.0	99.3	99.8	99.7	99.9	99.5	99.9	99.7	100.0	100.0	100.0	100.0

Table 36. Cumulative percent distribution of height in inches of black women in HES (1960-62) and HANES (1971-74), by age: United States

Height in inches	Age of black women													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74	1960-62	1971-74
	Cumulative percent distribution													
Under 55-----	0.1	-	-	-	-	-	-	-	-	-	1.1	-	-	-
Under 56-----	0.1	0.5	-	-	-	-	-	-	-	-	1.1	3.7	-	-
Under 57-----	0.9	0.5	-	-	-	0.1	0.9	-	-	-	3.2	3.7	3.7	0.2
Under 58-----	2.4	1.1	-	1.1	1.1	0.2	0.9	0.3	4.3	0.3	5.4	3.7	5.9	2.4
Under 59-----	4.9	2.6	-	2.8	2.1	1.8	2.2	4.5	1.2	6.2	0.3	9.0	6.7	5.8
Under 60-----	12.4	6.0	7.3	3.7	9.3	4.4	12.6	5.4	12.8	2.6	14.3	12.9	26.4	12.1
Under 61-----	19.4	12.4	14.9	10.3	14.9	7.8	20.3	11.9	22.4	12.0	17.1	18.4	34.3	21.6
Under 62-----	33.7	22.4	25.5	18.7	24.1	19.2	30.4	16.4	43.8	17.8	40.8	34.8	51.6	40.6
Under 63-----	51.3	38.7	35.1	34.3	42.0	35.4	50.4	25.8	62.6	38.5	62.4	54.2	67.3	60.9
Under 64-----	60.5	53.9	44.7	49.5	51.9	53.2	61.2	41.5	67.9	53.2	71.3	66.6	80.0	74.4
Under 65-----	78.7	70.0	68.4	65.1	75.9	66.7	75.3	66.0	83.3	70.6	85.8	77.8	94.7	85.0
Under 66-----	86.9	83.7	80.7	82.1	85.6	81.9	82.2	80.3	89.3	82.3	93.7	88.5	100.0	94.0
Under 67-----	93.6	90.6	91.3	90.1	93.2	89.3	92.6	86.1	93.4	90.9	94.8	95.3	100.0	97.0
Under 68-----	95.8	95.4	92.8	94.7	96.2	95.5	93.6	90.4	99.3	97.6	94.8	98.2	100.0	99.2
Under 69-----	98.7	98.0	97.9	97.0	99.0	98.5	98.7	95.3	100.0	99.4	95.9	99.6	100.0	99.6
Under 70-----	99.1	99.2	98.9	98.2	99.0	99.1	100.0	99.2	100.0	100.0	95.9	100.0	100.0	99.6
Under 71-----	99.6	99.8	98.9	99.3	99.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6

Table 37. Percent of adults aged 18-74 years above selected heights in HES (1960-62) and HANES (1971-74), by age, sex, and race: United States

Sex and race	Age of adults													
	All ages 18-74 years		18-24 years		25-34 years		35-44 years		45-54 years		55-64 years		65-74 years	
	1960- 62	1971- 74	1960- 62	1971- 74	1960- 62	1971- 74	1960- 62	1971- 74	1960- 62	1971- 74	1960- 62	1971- 74	1960- 62	1971- 74
<u>Men</u>														
Percent 69 inches or more														
Total <sup>1</sup> -----	38	50	44	61	50	60	42	53	35	47	27	39	18	26
White-----	29	46	45	62	52	62	44	54	37	49	29	39	18	26
Black-----	39	51	41	59	37	47	36	53	25	34	10	41	14	27
<u>Women</u>														
Percent 64 inches or more														
Total <sup>1</sup> -----	37	45	49	55	46	51	42	53	32	45	24	32	17	24
White-----	37	46	48	56	47	51	43	53	32	45	23	32	17	24
Black-----	39	46	55	50	48	47	39	58	32	47	29	33	20	26

<sup>1</sup>Includes all races.



# APPENDIXES

## CONTENTS

I.	Statistical Notes . . . . .	45
	Survey Design . . . . .	45
	Nonresponse . . . . .	46
	Missing Data . . . . .	47
	Small Numbers . . . . .	48
	Standard Errors . . . . .	48
II.	Demographic Terms . . . . .	49

### LIST OF APPENDIX TABLES

I.	Sampling rates by age-sex groups: United States, 1971-74 . . . . .	46
II.	Percent distribution of nonresponse adjustments factors, Health and Nutrition Examination Survey: United States, 1971-74 . . . . .	47
III.	Number of examinees with one or more missing anthropometric measurements, Health and Nutrition Examination Survey: United States, 1971-74 . . . . .	47

## APPENDIX I

# STATISTICAL NOTES

### Survey Design

The sampling plan of the Health and Nutrition Examination Survey (HANES) followed a highly stratified multistage probability design in which a sample of the civilian noninstitutionalized population of the coterminous United States, 1-74 years of age, was selected. Excluded from the selection process were those persons confined to institutions or residing on any of the reservation lands set aside for use by American Indians. Successive elements dealt with in the process of sampling are the primary sampling unit (PSU), census enumeration district (ED), segment (a cluster of households), household, eligible person, and finally, sample person.

The starting points in the first stage of this design were the 1960 decennial census lists of addresses and the nearly 1,900 PSU's into which the coterminous United States was divided. Each PSU is either a standard metropolitan statistical area, a single county, or two or three contiguous counties. The PSU's were grouped into 357 strata for use in the Health Interview Survey and subsequently collapsed into 40 superstrata for the Health and Nutrition Examination Survey.

Of the 40 superstrata, 15 contained a single large metropolitan area of more than 2 million population. These 15 large metropolitan areas were chosen for the sample with certainty. The remaining 25 superstrata were formed by classifying the noncertainty strata into 4 population density groups within each of 4 geographic regions. Then using a modified Goodman-Kish controlled-selection technique to assure proportionate representation of specified State groups and rate-of-population-change classes, 2 PSU's were chosen from each of the 25 noncertainty superstrata with the probability of selection of a

PSU proportionate to its 1960 population. In this manner, a total first-stage sample of 65 PSU's or "stands" included the areas within which a sample of persons would be selected for examination. The PSU's were scheduled to be sampled over a 3-year period with 300-600 persons to be examined per stand.

Although the 1970 census data were used as the frame for selecting the sample within the PSU when they became available, the calendar of operations required that the 1960 census data be used for the first 44 locations in the HANES sample. The 1970 census data were used for the last 21 stands of the sample.

Beginning with the use of the 1970 census data, the segment size was changed from an expected 6 households selected from compact clusters of 18 households to an expected compact cluster of 8 households. The change was made because of operational advantages, and research by the Census Bureau indicated that precision of estimates would not be appreciably affected by the change from noncompact clusters to compact clusters.

For ED's not having usable addresses (generally located in rural areas), area sampling was employed and consequently some variation in the segment size occurred. To make the sample representative of the current population of the United States, the address or ED segments were supplemented by a sample of housing units that had been constructed since the 1960 and 1970 decennial censuses.

Within each PSU, a systematic sample of segments was selected. The enumeration districts that fell into the sample were coded into one of two economic classes. The first class, identified as the "poverty stratum," was composed of

“Current Poverty Areas” that had been identified by the Bureau of the Census in 1970 (pre-1970 census), plus other ED’s in the PSU with a mean family income of less than \$3,000 in 1959 (based on the 1960 census). The second economic class, the “nonpoverty stratum,” included all ED’s not designated as belonging to the poverty stratum.

All sample segments classified as being in the poverty stratum were retained in the sample. For the first 42 stands, sample segments in nonpoverty stratum ED’s were divided into 8 random subgroups and one of the subgroups was chosen to remain in the HANES sample. Research indicated that efficiency of estimates could be increased by changing the ratio of poverty to nonpoverty segments from 8:1 to 2:1. Therefore in the later stands, the selected segments in the nonpoverty-stratum ED’s were divided into two random subgroups and one of the subgroups was chosen to remain in the HANES sample. The differential sampling permits a separate analysis with adequate reliability of those classified as being below the poverty level and those classified as being above the poverty level.

After identification of the sample segments, a list of all current addresses within the segment boundaries was made and the households were interviewed to determine the age and sex of each household member as well as other demographic and socioeconomic information required for the survey. If no one was at home after repeated calls or if the household members refused to be interviewed, the interviewer tried to determine the household composition from neighbors.

To select the persons in sample segments to be examined in HANES and at the same time to oversample certain groups at high risk of malnutrition, all household members aged 1-74 years in each segment were first listed on a sample selection worksheet with each household in the segment listed serially. The number of household members in each of the six age-sex groups shown in table I were then listed on the worksheet under the appropriate age-sex group column. The sample selection worksheets were next put in segment-number order and a systematic random sample of persons in each age-sex group was selected to be examined using the sampling rates shown in table I.

Table I. Sampling rates by age-sex groups, United States, 1971-74

Age and sex	Rate
1-5 years (men and women) .....	1/2
6-19 years (men and women) .....	1/4
20-44 years (men) .....	1/4
20-44 years (women) .....	1/2
45-64 years (men and women) .....	1/4
65-74 years (men and women) .....	1

The persons selected in the 65-stand sample of HANES comprised a representative sample of the target population and included 28,043 sample persons 1-74 years of age of whom 20,749 or 74 percent were examined. When adjustments were made for different sampling for high-risk groups, the response rate became 75 percent.

All data presented in this report are based on “weighted” observations. That is, data recorded for each person are inflated to characterize the subuniverse from which that sample person was drawn. The weight for each examined person is a product of the reciprocal of the probability of selecting the person, an adjustment for nonresponse cases (i.e., persons not examined), and a poststratified ratio adjustment which increases precision by bringing survey results into closer alignment with known U.S. population figures for 20 age, race, and sex groups as of November 1, 1972, the approximate midpoint of HANES.

A more detailed description of the survey design and selection technique can be found in “Plan and Operation of the Health and Nutrition Examination Survey, United States, 1971-1973,” *Vital and Health Statistics*, Series 1-Number 10a.

### Nonresponse

In any health examination survey, after the sample is identified and the sample persons are requested to participate in the examination, the survey meets one of its more severe problems, namely that of nonresponse. Usually a sizable number of sample persons will not participate in the examination. A further potential for bias results if the sample persons who do not participate differ from the sample persons examined with respect to the characteristics under examination. Intensive efforts were made in HANES to develop and implement procedures

and inducements that would reduce the number of nonrespondents and thereby reduce the potential of bias due to nonresponse. These procedures and inducements are discussed in "Plan and Operation of the Health and Nutrition Examination Survey, United States, 1971-1973," Series 1-Number 10a.

Despite these intensive efforts, 25 percent of the sample persons from 65 stands were not examined as compared to previous surveys with response rates of more than 86 percent. Consequently, the potential for a sizable bias does exist in the 1971-74 estimates in the publication. Because more than 95 percent of the sample persons responded to a medical questionnaire in 1971-74, one could examine the characteristics of the nonrespondents and the nature of nonresponse. This examination indicated that the likelihood of sizable bias is small.

As was mentioned earlier, the data in this report were based on weighted observations, and one of the components of the weight assigned to an examined person was an adjustment for nonresponse. A procedure was adopted which multiplies the reciprocal of the probability of selection of sample persons who were examined by a factor that brings estimates based on examined persons up to a level that would have been achieved if all sample persons had been examined. The nonresponse-adjustment factor was calculated by dividing the sum of the reciprocals of the probability of selection for all selected sample persons in each of five income groups within each stand by the sum of the reciprocals of the probability of selection for examined sample persons in the same stand and income group. The five income groups were: under \$3,000; \$3,000-\$6,999; \$7,000-\$9,999; \$10,000-\$14,999; and \$15,000 and over. For sample weighting purposes, income group was imputed for 5.6 percent of the sample persons using educational level of the head of the household. To the extent that the income-within-stand classes were homogeneous with respect to the health characteristics under study, the adjustment procedure was effective in reducing the potential of bias due to nonresponse. The percent distribution of the nonresponse adjustment factors computed for the 65-stand sample of HANES is shown in table II.

Table II. Percent distribution of nonresponse adjustment factors, Health and Nutrition Examination Survey: United States, 1971-74

Size of factor	Percent distribution
Total .....	100.0
1.00-1.24 .....	32.6
1.25-1.49 .....	38.5
1.50-1.74 .....	18.2
1.75-1.99 .....	7.4
2.00-2.49 .....	2.8
2.50-2.99 .....	0.3
3.00 <sup>1</sup> .....	0.3

<sup>1</sup>A size of 3.00 was assigned for all factors greater than 3.00. The final poststratified ratio adjustment corrects for this truncation.

### Missing Data

Examination surveys are subject to the loss of information not only through the failure to examine all sample persons but also from the failure to obtain and record all items of information for examined persons. Age, sex, and race were known for every examined person, but for a number of examinees one or more of the anthropometric measurements were not available. The extent of these missing measurements is indicated in table III.

Estimates for missing anthropometric data were generally made subjectively on the basis of a multiple-regression type decision, substituting for the missing measurements those of an individual who was of the same age, sex, and race and who had other dimensions similar to those available for the examinee with incomplete data.

For those with no anthropometric measurements available, a respondent of the same age-sex-race group was selected at random and his

Table III. Number of examinees with one or more missing anthropometric measurements, Health and Nutrition Examination Survey: United States, 1971-74

Measurement missing	Number of examinees
All measurements .....	23
Height only .....	15
Weight only .....	45
Height and weight .....	4

measurements were assigned to the non-examined person.

### **Small Numbers**

In some tables, magnitudes are shown for cells for which the sample size is so small that the standard error may be several times as great as the statistic itself. In such instances the numbers, if shown, have been included only to convey an impression of the overall story of the table.

### **Standard Errors**

The probability design of the survey makes possible the estimation of standard errors corresponding to the weighted estimates presented. The standard error is primarily a measure of sampling variability, that is, the variations that might occur 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. It does not include estimates of any

biases which might lie 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 2½ times as large.

Estimates of standard errors are obtained from the sample data and are themselves subject to sampling error when the number of cases in a cell is small, or even occasionally when the number of cases is substantial.

Estimates of the standard errors for selected statistics used in this report are presented in tables 4, 11, 15, and 22. These estimates have been prepared by a replication technique which yields overall variability through observation of variability among random subsamples of the total sample. Again, readers are reminded that these estimated standard errors do not reflect any residual bias which might still be present after the attempted correction for nonresponse.

## APPENDIX II

# DEMOGRAPHIC TERMS

The demographic characteristics of the population sampled are defined as follows:

*Age.*—The age recorded for each examinee was the age at his last birthday on the date of examination. The age criterion for inclusion in the sample used in this survey was defined in terms of his age at time of census interview. Some of those who were 74 years old at the time of interview became 75 years old by the time of the examination. There were 20 such cases. In the adjustment and weighting proce-

dures used to produce national estimates, these persons were included in the 74-year-old group.

*Race.*—For each individual, race was recorded by observation as “white,” “black,” or “other races.” The last category included American Indians, Chinese, Japanese, and all races other than white or black. Mexican persons were included with “white” unless definitely known to be American Indian or of another race other than white. Blacks and persons of mixed black and other parentage were recorded as “black.”



## VITAL AND HEALTH STATISTICS Series

- Series 1. Programs and Collection Procedures.*—Reports which describe the general programs of the National Center for Health Statistics and its offices and divisions and data collection methods used and include definitions and other material necessary for understanding the data.
- Series 2. Data Evaluation and Methods Research.*—Studies of new statistical methodology including experimental tests of new survey methods, studies of vital statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, and contributions to statistical theory.
- Series 3. Analytical Studies.*—Reports presenting analytical or interpretive studies based on vital and health statistics, carrying the analysis further than the expository types of reports in the other series.
- Series 4. Documents and Committee Reports.*—Final reports of major committees concerned with vital and health statistics and documents such as recommended model vital registration laws and revised birth and death certificates.
- Series 10. Data From the Health Interview Survey.*—Statistics on illness, accidental injuries, disability, use of hospital, medical, dental, and other services, and other health-related topics, all based on data collected in a continuing national household interview survey.
- Series 11. Data From the Health Examination Survey and the Health and Nutrition Examination Survey.*—Data from direct examination, testing, and measurement of national samples of the civilian noninstitutionalized population provide the basis for two types of reports: (1) estimates of the medically defined prevalence of specific diseases in the United States and the distributions of the population with respect to physical, physiological, and psychological characteristics and (2) analysis of relationships among the various measurements without reference to an explicit finite universe of persons.
- Series 12. Data From the Institutionalized Population Surveys.*—Discontinued effective 1975. Future reports from these surveys will be in Series 13.
- Series 13. Data on Health Resources Utilization.*—Statistics on the utilization of health manpower and facilities providing long-term care, ambulatory care, hospital care, and family planning services.
- Series 14. Data on Health Resources: Manpower and Facilities.*—Statistics on the numbers, geographic distribution, and characteristics of health resources including physicians, dentists, nurses, other health occupations, hospitals, nursing homes, and outpatient facilities.
- Series 20. Data on Mortality.*—Various statistics on mortality other than as included in regular annual or monthly reports. Special analyses by cause of death, age, and other demographic variables; geographic and time series analyses; and statistics on characteristics of deaths not available from the vital records based on sample surveys of those records.
- Series 21. Data on Natality, Marriage, and Divorce.*—Various statistics on natality, marriage, and divorce other than as included in regular annual or monthly reports. Special analyses by demographic variables; geographic and time series analyses; studies of fertility; and statistics on characteristics of births not available from the vital records based on sample surveys of those records.
- Series 22. Data From the National Mortality and Natality Surveys.*—Discontinued effective 1975. Future reports from these sample surveys based on vital records will be included in Series 20 and 21, respectively.
- Series 23. Data From the National Survey of Family Growth.*—Statistics on fertility, family formation and dissolution, family planning, and related maternal and infant health topics derived from a biennial survey of a nationwide probability sample of ever-married women 15-44 years of age.

For a list of titles of reports published in these series, write to:

Scientific and Technical Information Branch  
National Center for Health Statistics  
Public Health Service  
Hyattsville, Md. 20782

DHEW Publication No. (PHS) 79-1659  
Series 11-No. 211

**NCHS**

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
Public Health Service  
Office of Health Research, Statistics, and Technology  
National Center for Health Statistics  
3700 East West Highway  
Hyattsville, Maryland 20782

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

For publications in the  
*Vital and Health Statistics*  
Series call 301-436-NCHS.

POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF H.E.W.

HEW 296

THIRD CLASS

