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Lumbar Spine and Proximal Femur Bone Mineral Density, Bone Mineral Content, and Bone Area: United States, 2005–2008

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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Contents

Abstract 1

Introduction 1

Methods 1
- Sample Description 2
- DXA Component 2
- Statistical Analysis 3

Key Findings 4
- Invalid Scan Results 4
- BMD by Age, Race and Ethnicity, and Sex 5

References 12

Figures

1. Percentage with invalid results for more than two lumbar vertebrae in persons aged 8 years and over, by age, race and ethnicity, and sex: United States, 2005–2008 4
2. Percentage with invalid proximal femur results in persons aged 8 years and over, by age, race and ethnicity, and sex: United States, 2005–2008 5
3. Smoothed mean total lumbar spine bone mineral density of persons aged 8 years and over, by age and race and ethnicity: United States, 2005–2008 6
4. Smoothed mean femur neck bone mineral density of persons aged 8 years and over, by age and race and ethnicity: United States, 2005–2008 7
5. Smoothed mean total proximal femur bone mineral density of persons aged 8 years and over, by age and race and ethnicity: United States, 2005–2008 8
6. Percent difference in mean bone mineral density of non-Hispanic black compared with non-Hispanic white persons aged 8 years and over, by skeletal site and age: United States, 2005–2008 9
7. Percent difference in mean bone mineral density of Mexican-American compared with non-Hispanic white persons aged 8 years and over, by skeletal site and age: United States, 2005–2008 10
8. Percent difference in mean lumbar spine bone mineral density in females compared with males aged 8 years and over, by age: United States, 2005–2008 11
9. Percent difference in mean femur neck bone mineral density in females compared with males aged 8 years and over, by age: United States, 2005–2008 11

Detailed Tables

Bone mineral density

1. Total lumbar spine (L1–L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 13
2. Lumbar spine vertebra 1 (L1) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 15
3. Lumbar spine vertebra 2 (L2) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 17
4. Lumbar spine vertebra 3 (L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 19
5. Lumbar spine vertebra 4 (L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 21

6. Lumbar spine vertebrae 1 and 2 (L1, L2) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 23
7. Lumbar spine vertebrae 1 and 3 (L1, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 25
8. Lumbar spine vertebrae 1 and 4 (L1, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 27
9. Lumbar spine vertebrae 2 and 3 (L2, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 29
10. Lumbar spine vertebrae 2 and 4 (L2, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 31
11. Lumbar spine vertebrae 3 and 4 (L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 33
12. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 35
13. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 37
14. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 39
15. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 41
16. Total proximal femur bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 43
17. Femur neck bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 45
18. Trochanter bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 47
19. Intertrochanter bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 49
20. Ward's triangle bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 51

Bone mineral content

21. Total lumbar spine (L1–L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 53
22. Lumbar spine vertebra 1 (L1) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 55
23. Lumbar spine vertebra 2 (L2) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 57
24. Lumbar spine vertebra 3 (L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 59
25. Lumbar spine vertebra 4 (L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 61
26. Lumbar spine vertebrae 1 and 2 (L1, L2) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 63
27. Lumbar spine vertebrae 1 and 3 (L1, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 65
28. Lumbar spine vertebrae 1 and 4 (L1, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 67
29. Lumbar spine vertebrae 2 and 3 (L2, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 69
30. Lumbar spine vertebrae 2 and 4 (L2, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 71
31. Lumbar spine vertebrae 3 and 4 (L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 73
32. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 75

33. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 77
34. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 79
35. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 81
36. Total proximal femur bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 83
37. Femur neck bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 85
38. Trochanter bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 87
39. Intertrochanter bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 89
40. Ward's triangle bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 91

Bone area

41. Total lumbar spine (L1–L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 93
42. Lumbar spine vertebra 1 (L1) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 95
43. Lumbar spine vertebra 2 (L2) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 97
44. Lumbar spine vertebra 3 (L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 99
45. Lumbar spine vertebra 4 (L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 101
46. Lumbar spine vertebrae 1 and 2 (L1, L2) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 103
47. Lumbar spine vertebrae 1 and 3 (L1, L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 105
48. Lumbar spine vertebrae 1 and 4 (L1, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 107
49. Lumbar spine vertebrae 2 and 3 (L2, L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 109
50. Lumbar spine vertebrae 2 and 4 (L2, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 111
51. Lumbar spine vertebrae 3 and 4 (L3, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 113
52. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 115
53. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 117
54. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 119
55. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 121
56. Total proximal femur area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 123
57. Femur neck area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 125
58. Trochanter area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 127
59. Intertrochanter area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 129
60. Ward's triangle area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008 . . . 131

Abstract

Objective

This report presents bone measurement data from dual-energy X-ray absorptiometry scans of the lumbar spine and proximal femur for persons aged 8 years and over from the National Health and Nutrition Examination Survey (NHANES) 2005–2008.

Methods

Means, standard deviations, and selected percentiles were calculated for the proximal femur and lumbar spine (total and subregions) by sex, race and ethnicity, and age. Smoothed mean total lumbar spine and femur neck bone mineral density (BMD) were plotted by age, sex, and race and ethnicity. Multiple regression was used to test for significant interactions and to calculate mean total lumbar spine and femur neck BMD after adjusting for age, sex, and race and ethnicity. Differences by sex, race and ethnicity, and age were summarized by calculating the percent difference in adjusted means.

Results

Among scanned individuals, 11% lacked total lumbar spine data due to invalid data for one or more lumbar vertebrae, and 4% had invalid data for the proximal femur. Non-Hispanic black persons had 6% higher total lumbar spine BMD and 9%–10% higher femur neck BMD than non-Hispanic white persons. Mean total lumbar spine BMD and femur neck BMD did not differ between Mexican-American and non-Hispanic white persons in those under age 20. For those aged 20 and over, Mexican-American persons had 4% lower total lumbar spine BMD but 1% higher femur neck BMD than non-Hispanic white persons. Mean total lumbar spine BMD was 8%–17% higher in females aged 8–15 compared with males of the same age. In the age group 16–49, mean total lumbar spine BMD was similar or slightly higher for females compared with males, but after age 50 it was 6%–15% lower for females compared with males. Mean femur neck BMD was 5%–13% lower for females than males in all age groups except 12–15.

Keywords: National Health and Nutrition Examination Survey

Lumbar Spine and Proximal Femur Bone Mineral Density, Bone Mineral Content, and Bone Area: United States, 2005–2008

by Anne C. Looker, Lori G. Borrud, and Jeffery P. Hughes, National Center for Health Statistics; Bo Fan and John A. Shepherd, University of California, San Francisco; and L. Joseph Melton III, Mayo Clinic

Introduction

In 2005, the National Health and Nutrition Examination Survey (NHANES) implemented lumbar spine as well as proximal femur dual-energy X-ray absorptiometry (DXA) scans of survey participants aged 8 years and over. The inclusion of lumbar spine DXA measurements in NHANES 2005–2008 provides the first nationally representative data for this skeletal site for the U.S. population. Femur measurements made on the same sample can provide information about current femur skeletal status for the U.S. population. These two skeletal sites are among the most commonly used sites to assess skeletal status among adults. For example, the World Health Organization (WHO) recently designated the femur neck as the preferred skeletal site for assessing osteoporosis in populations (1), and it is currently the skeletal site included in the WHO fracture prediction model, FRAX® (2). However, a number of clinical guidelines are based on measurements at both the proximal femur and lumbar spine (3–7). The lumbar spine and proximal femur data from NHANES 2005–2008 provide the opportunity to examine demographic patterns in lumbar spine and proximal femur bone mineral density (BMD) for males and females from multiple racial and ethnic groups across a wide age range.

Methods

NHANES is conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS). NHANES is a series of cross-sectional, nationally representative surveys of the U.S. civilian noninstitutionalized population. Samples are selected through a complex, multistage probability design (8). Individuals identified for the survey are initially interviewed in their homes. Following the household interview, survey participants are asked to complete the health examination component, conducted in mobile examination centers (MECs), which use standardized techniques and equipment for the collection of high-quality data. For reasons that include disclosure and reliability issues, the data are released on public-use data files every 2 years. The data used for this report are from 2005–2006 and 2007–2008. Public-use DXA data files and documentation can be found at the NCHS website for NHANES (9,10).

Sample Description

The NHANES target population is the U.S. civilian noninstitutionalized population. In 2005–2008, the survey was designed to provide statistically reliable estimates for non-Hispanic white, non-Hispanic black, and Mexican-American persons. In 2007–2008, the survey was also designed to provide statistically reliable estimates for "all Hispanics," but estimates are not presented separately for all Hispanics in this report because the group was not oversampled in 2005–2006. Participants self-reported race and ethnicity. With the exception of pregnant females, survey participants aged 8 and over were eligible for the DXA scan. Participants were also excluded from the DXA examination if they reported radiographic contrast material (barium) use within the past 7 days or nuclear medicine studies within the past 3 days, or if they weighed over 300 pounds or were taller than 6'5" (due to the DXA device's physical limitations). Participants who were excluded from the DXA scan for reasons other than pregnancy were considered to be eligible nonrespondents.

All procedures in NHANES 2005–2008 were approved by the NCHS Institutional Review Board. Written informed consent was obtained from all participants aged 18 and over prior to the study. For participants under age 18, parental consent and child assent was obtained. A total of 15,026 nonpregnant participants aged 8 and over were examined and found eligible for the DXA examination; this sample size includes those who did not receive DXA scans due to body size or safety reasons. Of this total sample, valid measurements for the proximal femur were obtained from 12,593, or 84%, and valid measurements for at least two lumbar vertebrae [required for calculating *T* or *Z* scores according to International Society for Clinical Densitometry (ISCD) guidelines (5)] were obtained from 12,865, or 86%. Valid measurements for all four lumbar vertebrae, which are required to calculate data for the total lumbar spine, were obtained from 11,636, or 77%.

DXA Component

DXA scans were acquired with a Hologic QDR 4500A fan-beam densitometer (Hologic, Inc., Bedford, Massachusetts). Hologic software version 8.26:a3* was used to acquire all scans through mid-2005. In 2005, the acquisition software was updated to Hologic Discovery v12.4. All scans were administered by certified radiology technologists. Details of the DXA examination protocol are documented in the Body Composition Procedures Manual on the NHANES website (11,12). Data provided by DXA scans include BMD, bone mineral content (BMC), and bone area. DXA scans of the proximal femur provided data for the femur neck, trochanter, intertrochanter, Ward's triangle, and total femur. DXA scans of the lumbar spine provided data for each lumbar vertebra separately (L1, L2, L3, and L4) as well as for the total lumbar spine (L1–L4).

All femur scans were analyzed with Hologic Discovery software version 12.1. All spine scans acquired in 2005–2006 and 2007–2008 were first analyzed with Hologic Discovery v12.4, then reanalyzed with Hologic APEX v3.0 software, which has been shown to have better precision for the spine (13). Comparisons of total spine BMD from each software version were made for the total sample and by age groups, race and ethnicity, and gender. Mean differences in BMD for 2005–2006 and 2007–2008 ranged from 0.00045 for "other" race and ethnicity to 0.00518 for participants aged 60 and over. Simple kappa statistics for BMD ranged from 0.9622 for participants aged 50–59 to 0.9899 for those aged 8–49. There were no differences between the two software versions in the percentages of participants in the total sample with BMD values plus or minus (+/–) three standard deviations (SD) from the mean BMD for the total sample. Differences in the percentages with BMD values +/– 3 SD from the mean in subgroups were seen, but they were not consistent across the two software versions; that is, for some subgroups the Discovery version produced higher percentages of +/– 3 SD and for other subgroups the APEX software produced higher percentages. APEX results are used in this report.

A high level of quality control was maintained throughout the data collection period. In order to ensure that data collected in the three MECs used could be pooled for analysis, a rigorous quality control program was used to provide cross-calibration and longitudinal monitoring (11,12). The Hologic Anthropomorphic Spine Phantom that traveled with each MEC was scanned daily, as required by the manufacturer, to ensure accurate calibration of the densitometer and to correct for any longitudinal scanner-related changes in participant data. A single Hologic Spine and single Hologic Block Phantom were also circulated among the MECs and were scanned at the start of operations at each survey site; this provided additional data for use in longitudinal monitoring and cross-calibration. The University of California, San Francisco (UCSF), used the Cumulative Statistics method, or CUSUM, and MEC-specific phantom data to identify any breaks in the calibration of the densitometers over the course of the survey (14). However, there were no break points in the spine phantom data for any of the three MECs during 2005–2008, and, therefore, no corrections to the participant spine data were needed. Likewise, comparison of data for the spine and block phantoms that circulated among the MECs indicated no statistically significant differences, so that data from the three MECs could be combined.

Technologist acquisition performance was monitored through in-person observations in the field and subsequent scan review, with feedback provided as needed. Retraining sessions were conducted annually and as needed to reinforce correct techniques and appropriate protocol. Each participant scan was reviewed and analyzed by the NHANES quality control center at the UCSF Department of Radiology using standard radiologic techniques and study-specific protocols developed for NHANES. UCSF reviewers applied

invalidity codes to participant lumbar spine or proximal femur scans that could not be analyzed accurately. Reasons for invalid subregions included:

1. Jewelry and other objects not removed.
2. Nonremovable objects (prostheses, implants, or casts, among others).
3. Excessive X-ray ''noise'' due to truncal adiposity, which interfered with the ability to obtain valid measurements.
4. Arm or leg overlap.
5. Body parts outside the scan field.
6. Positioning problems.
7. Participant motion.
8. Other reasons (missing limbs, unknown artifacts, vertebral or proximal femoral fracture, or panniculus).

Invalidity codes were applied to each lumbar vertebra. If one or more vertebrae were coded as invalid, data for the total spine (L1–L4) were also coded as invalid; however, data for valid individual vertebrae were retained. In the case of the proximal femur, all femur subregions had to be valid in order for data to be retained for any of the subregions, consistent with the approach used for DXA data for the proximal femur in NHANES III (1988–1994) (15).

Statistical Analysis

In this report, BMD, BMC, and bone area data are presented for each lumbar vertebra and proximal femur subregion, as well as for total lumbar spine and total femur, by age, gender, and race and ethnicity. In addition, these data are provided for 10 combinations of two or three lumbar vertebrae (L1, L2; L1, L3; L1, L4; L2, L3; L2, L4; L3, L4; L1, L2, L3; L1, L2, L4; L1, L3, L4; and L2, L3, L4). Data analyses were performed using the statistical packages SAS version 9.2 (SAS Institute, Cary, North Carolina) and SUDAAN version 10.0 (RTI International, Research Triangle Park, North Carolina) or with the R survey package (University of Washington, Seattle, Washington) (16). Variance estimates were estimated by Taylor Series Linearization (17,18), a method that incorporates the sample weights and accounts for the complex NHANES sample design. Sample weights calculated for examined respondents were applied to the data to account for differential probabilities of selection, nonresponse, and noncoverage. Estimates based on less than 12 degrees of freedom or with a relative standard error (RSE) greater than 30% were considered statistically unreliable (17,18). RSE is defined as the ratio of the standard error of the estimate divided by the estimate multiplied by 100. In the tables, estimates based on less than 12 degrees of freedom or with an RSE between 30% and 39% are identified with an asterisk (*). Estimates with an RSE greater than 40% or whose standard errors were not able to be calculated using SUDAAN due to small cell sizes were omitted from the tables. Means, standard deviations, and percentiles were calculated using SUDAAN PROC DESCRIPT. Means calculated for adults aged 20 and over were age adjusted to the 2000 U.S. standard population to facilitate comparisons between the sex and racial and ethnic subgroups (19).

To provide a detailed description of nonresponse to the lumbar spine scans, demographic characteristics of two groups of persons with missing lumbar spine data were examined: 1) scanned persons with one or more invalid vertebrae, because these individuals lack data for the total lumbar spine, which is commonly used to describe spine status in research studies; and 2) scanned persons with more than two invalid vertebrae, because ISCD clinical guidelines allow assessment of spine skeletal status via *T* and *Z* scores with valid data from a minimum of two lumbar vertebrae.

Total lumbar spine, femur neck, and total proximal femur BMD data were plotted by age, sex, and race and ethnicity using Svysmooth, a smoothing procedure available in the R survey package that is designed for use with surveys that employ complex designs (16). The femur neck was chosen because it has been proposed as the reference skeletal site for defining osteoporosis in epidemiological studies (1), while the total proximal femur was used for the osteoporosis objective in Healthy People 2010 (20). The total lumbar spine was chosen because it is frequently used to describe spine status in epidemiological studies. Previous analyses found that a relatively high level of missing data occurred in the older age groups for the total lumbar spine due to invalid data for at least one lumbar vertebra (21). Despite this, previous analyses indicate that total lumbar spine data can be used to portray demographic patterns for the lumbar spine in older persons (21). Specifically, results for those over age 50 were found to be similar in persons with no invalid vertebra (and thus having valid total lumbar spine data) compared with those having two or more valid vertebrae (21).

Multiple regression (SUDAAN PROC REGRESS) was used to assess whether significant age × sex or age × race and ethnicity interactions in BMD levels existed and to calculate mean total lumbar spine BMD and femur neck BMD after adjusting for age, sex, and race and ethnicity. Interactions were tested separately by detailed age category for respondents under age 20 (age groups 8–11, 12–15, and 16–19) compared with those aged 20 and over (in decades) in order to reflect the biological differences in bone changes by age (bone growth in childhood and adolescence, maintenance of bone during adulthood, and bone loss with aging). If no significant interaction with age was observed, data were combined for ages 8–19 or ages 20 and over when calculating means by sex or race and ethnicity. Differences in mean BMD by sex and race and ethnicity by age were tested using *F* tests from multiple regression and were summarized by calculating the percent difference in adjusted means as:

$$\text{Percent difference} = ((\text{Mean}_{\text{selected comparison group}} - \text{Mean}_{\text{reference group}})/\text{Mean}_{\text{reference group}}) \times 100$$

Non-Hispanic white persons were chosen as the reference group for all race and ethnicity comparisons, and males were chosen as the reference group for comparisons by sex. Use of terms such as ''higher,'' ''lower,'' and ''greater'' when describing differences in mean BMD between groups indicates that they differed statistically ($p < 0.05$). Terms such as ''similar'' or ''did not

differ'' indicate that the difference in mean BMD of the groups being compared was not statistically significant.

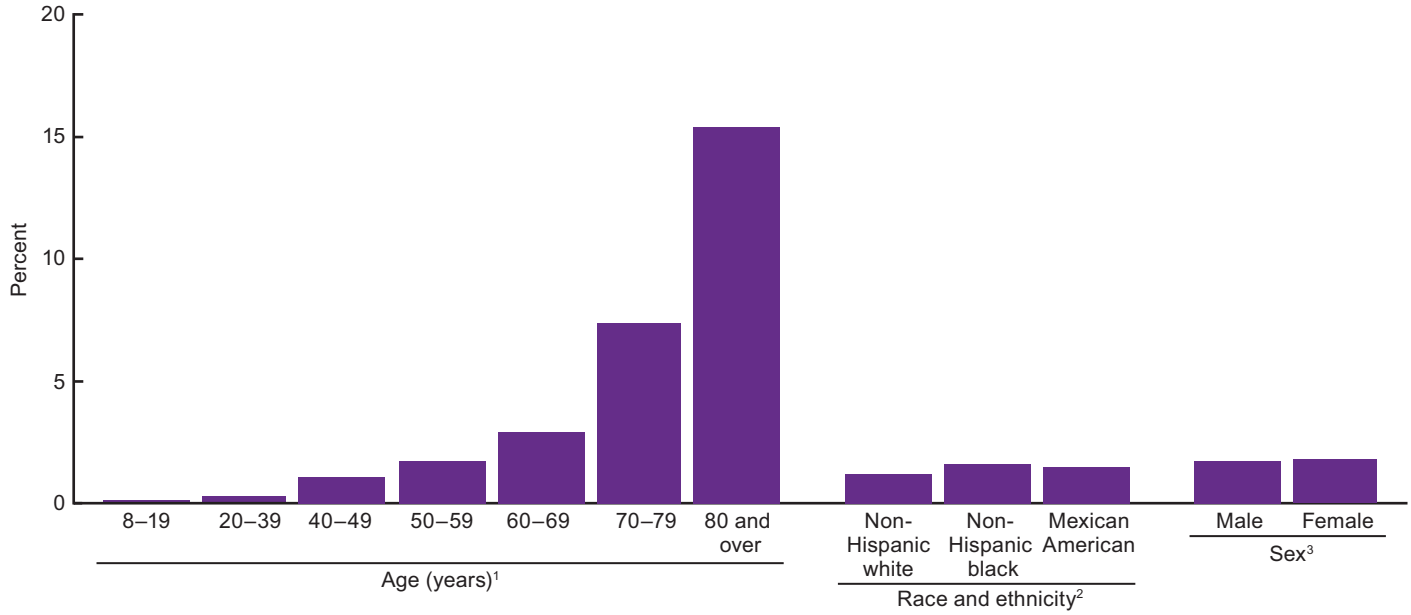
Patterns in BMC by age, sex, and race and ethnicity were also examined for respondents under age 20, because BMC is frequently used in epidemiological studies of children and adolescents. However, conclusions were the same as for BMD, so only BMD results are shown.

Key Findings

Means, standard deviations, and percentiles for BMD, BMC, and bone area of the lumbar spine and proximal femur are presented in Tables 1–60 for persons aged 8 and over. Information regarding invalid scan data is shown in Figures 1 and 2. Patterns in total lumbar spine and femur neck BMD by age, sex, and race and ethnicity are summarized in Figures 3–9.

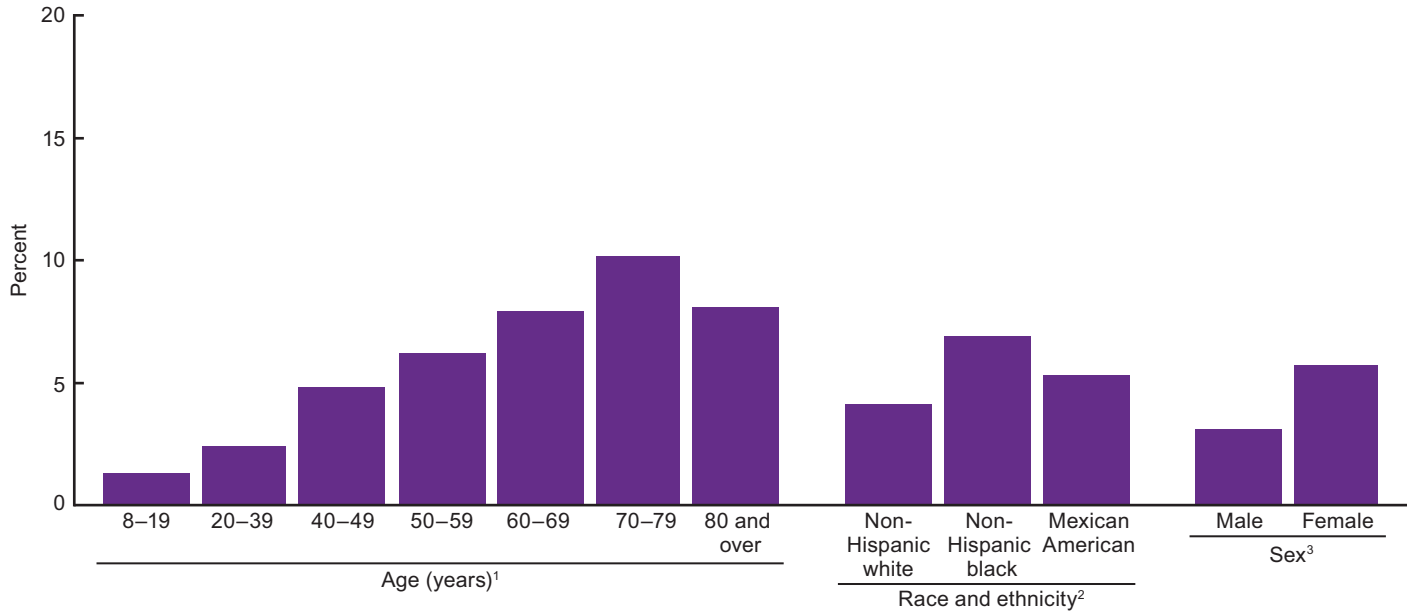
Invalid Scan Results

- In NHANES 2005–2008, 13,106 survey participants received DXA scans of the lumbar spine. Eleven percent ($n = 1{,}470$) of those who received a spine scan had invalid data for at least one lumbar vertebra, and thus did not have data for the total lumbar spine. Most of these had invalid data for a single vertebra (6%). The percentage with invalid data for individual vertebrae among those who received a lumbar spine scan was 4% for L1, 4% for L2, 5% for L3, and 7% for L4. Three percent had invalid data for two of the four vertebrae, 1% had invalid data for three of the four vertebrae, and 1% had invalid data for all four vertebrae.
- Two percent ($n = 241$) of scanned survey participants had invalid data for more than two vertebrae, and thus could not have valid T or Z scores calculated. No differences by sex or race and ethnicity were seen in the percentage with more than two invalid vertebrae after adjusting for age (Figure 1). However, after adjusting for sex and race and ethnicity, the percentage with more than two invalid vertebrae increased significantly with age (Figure 1), ranging from less than 1% in the youngest age group to 15% in the oldest age group. Similar patterns by age, sex, and race and ethnicity were seen among those with invalid data for more than one vertebra (e.g., missing total lumbar spine data) (data not shown).
- In NHANES 2005–2008, 13,193 survey participants received DXA scans of the proximal femur. Of these, 4% ($n = 600$) were missing data for the proximal femur due to invalid data. The percentage with invalid data for the proximal femur increased significantly with age (Figure 2) and differed by sex (females more than males) and race and ethnicity (non-Hispanic black persons more than non-Hispanic white and Mexican-American persons).



[1]Adjusted for race and ethnicity and sex.
[2]Adjusted for age and sex.
[3]Adjusted for race and ethnicity and age.
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 1. Percentage with invalid results for more than two lumbar vertebrae in persons aged 8 years and over, by age, race and ethnicity, and sex: United States, 2005–2008

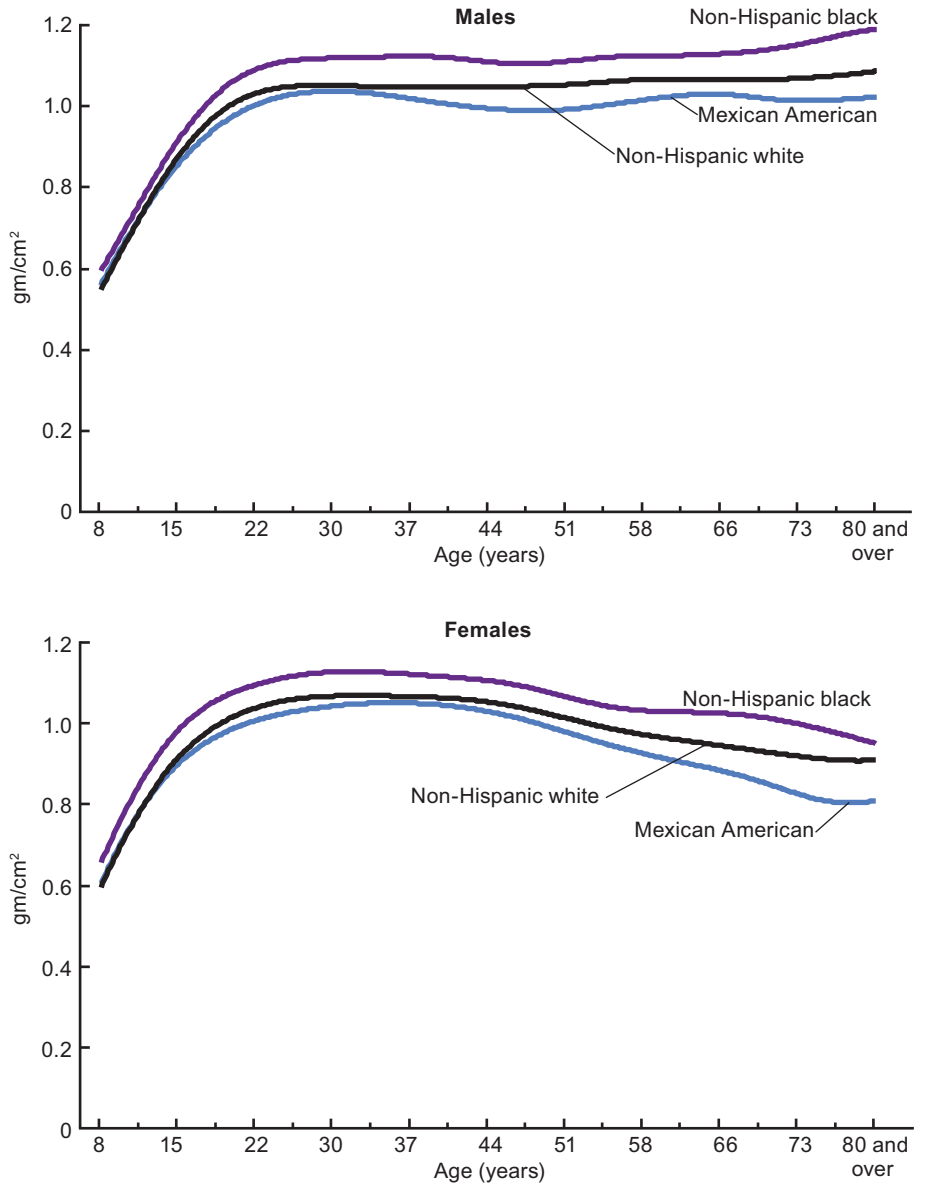


[1]Adjusted for race and ethnicity and sex.
[2]Adjusted for age and sex.
[3]Adjusted for race and ethnicity and age.
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 2. Percentage with invalid proximal femur results in persons aged 8 years and over, by age, race and ethnicity, and sex: United States, 2005–2008

BMD by Age, Race and Ethnicity, and Sex

- Smoothed mean total lumbar spine BMD increased until early adulthood and then remained relatively stable in males and females in the three race and ethnicity groups examined until approximately age 50 (Figure 3). After age 50, mean lumbar spine BMD remained stable or increased slightly in males but declined in females in the three race and ethnicity groups (Figure 3).
- Smoothed mean femur neck and total proximal femur BMD increased until early adulthood in males and females in all three race and ethnicity groups examined and then declined for both sexes (Figures 4 and 5).
- The age × race and ethnicity interaction term comparing mean BMD of non-Hispanic black with non-Hispanic white persons by detailed age group was not statistically significant among those aged 8–19 or those aged 20 and over at either skeletal site, so results for non-Hispanic black compared with non-Hispanic white persons were collapsed for ages 8–19 and 20 and over. Mean total lumbar spine BMD (adjusted for age and sex) of non-Hispanic black persons was 6% higher than in non-Hispanic white persons among both age groups 8–19 and 20 and over (Figure 6). Mean femur neck BMD (adjusted for age and sex) of non-Hispanic black persons was 9–10% higher than in non-Hispanic white persons among those aged 8–19 and 20 and over (Figure 6).
- The age × race and ethnicity interaction term comparing mean BMD of Mexican-American with non-Hispanic white persons by detailed age group was statistically significant for those aged 8–19 at the total lumbar spine but was not statistically significant for the femur neck. The age × race and ethnicity interaction term was not statistically significant for those aged 20 and over at either skeletal site. Thus, total lumbar spine results for Mexican-American compared with white persons were examined by detailed age group for those aged 8–19, but femur neck results were collapsed for ages 8–19. Results for both the total lumbar spine and femur neck were collapsed for those aged 20 and over. Mean total lumbar spine BMD (adjusted for sex) did not differ between Mexican-American and non-Hispanic white persons among age groups 8–11, 12–15, and 16–19 years (Figure 7). However, mean total lumbar spine BMD (adjusted for age and sex) was 4% lower in Mexican-American than in non-Hispanic white persons aged 20 and over (Figure 7). Mean femur neck BMD (adjusted for age and sex) did not differ between Mexican-American and non-Hispanic white persons under age 20 but was significantly higher in Mexican-American persons aged 20 and over (Figure 7).
- The age × sex interaction terms for total lumbar spine BMD and femur neck BMD by detailed age group were statistically significant among those aged 8–19 and 20 and over at both skeletal sites, so all results by sex are shown by detailed age

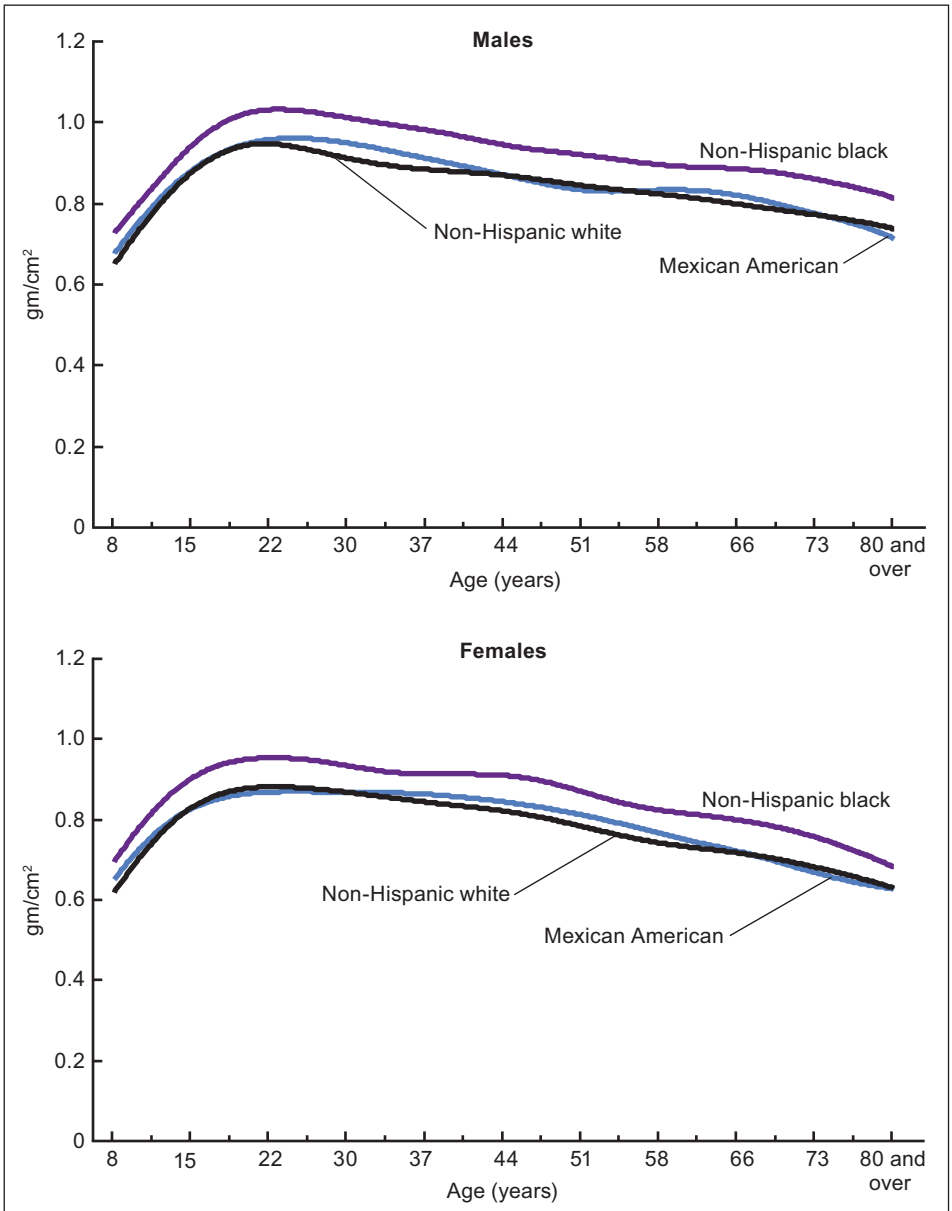


SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 3. Smoothed mean total lumbar spine bone mineral density of persons aged 8 years and over, by age and race and ethnicity: United States, 2005–2008

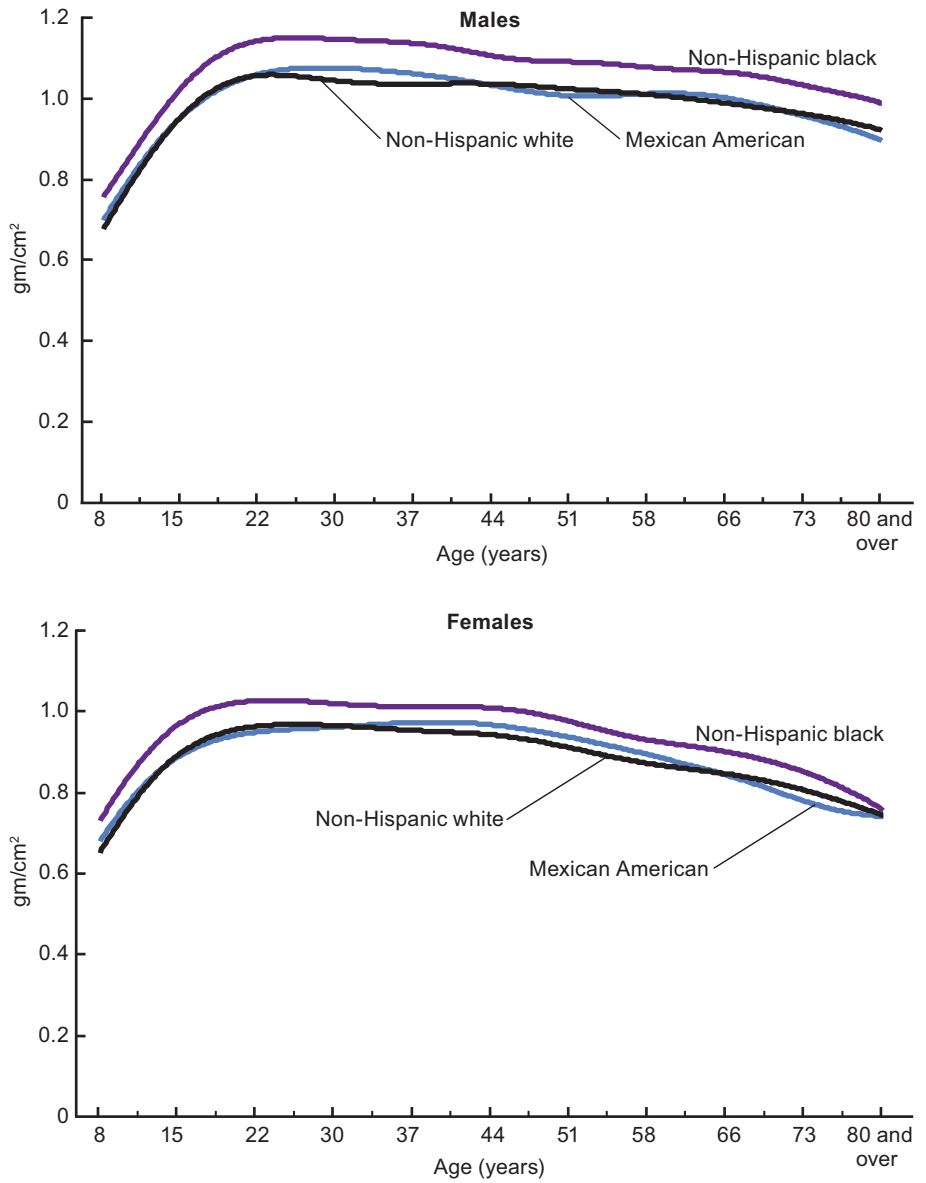
categories. Mean total lumbar spine BMD (adjusted for race and ethnicity) was 6–14% higher in females aged 8–15 compared with males of the same age (Figure 8). Between ages 16 and 49, adjusted mean total lumbar spine BMD was similar or slightly higher (e.g., 2% for age group 30–39) for females compared with males (Figure 8). After age 50, adjusted mean total lumbar spine BMD was 6–15% lower in females compared with males (Figure 8).

- Mean femur neck BMD (adjusted for race and ethnicity) was 5–13% lower for females than males in all age groups except 12–15 (Figure 9).



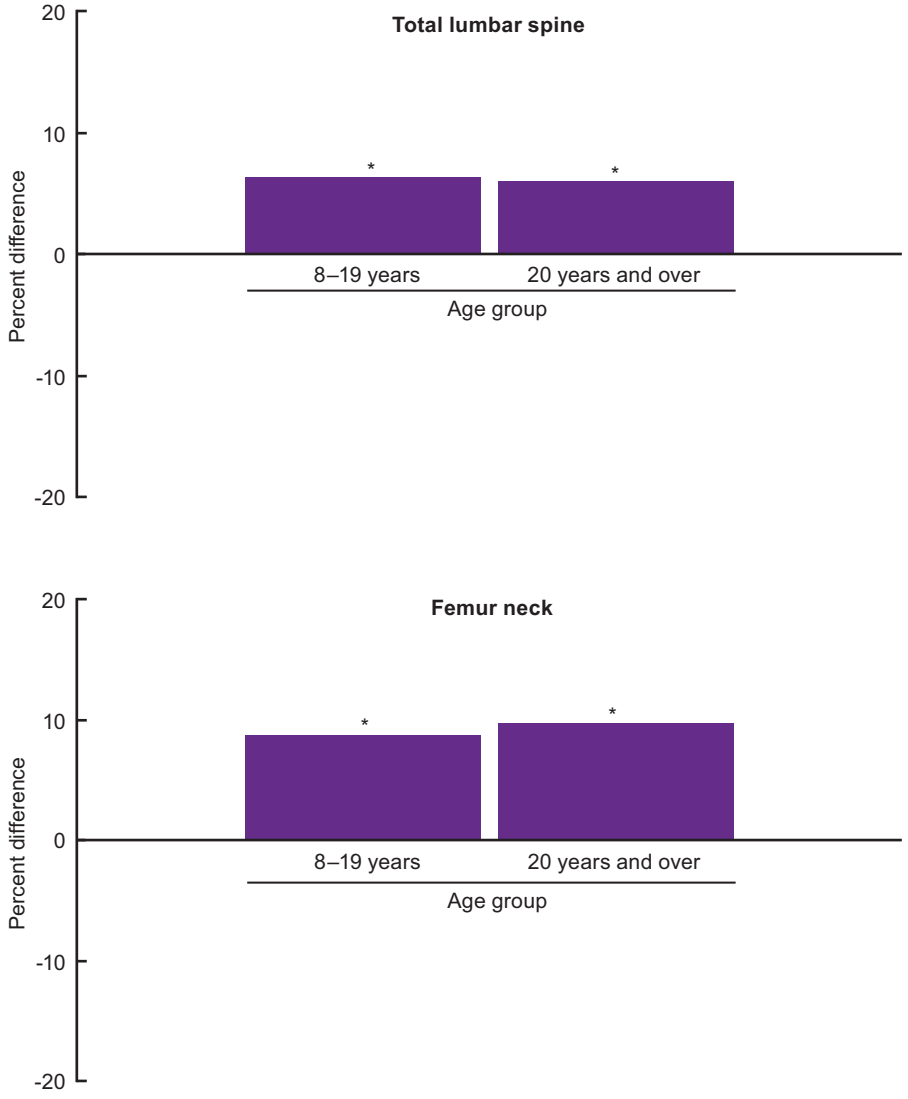
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 4. Smoothed mean femur neck bone mineral density of persons aged 8 years and over, by age and race and ethnicity: United States, 2005–2008



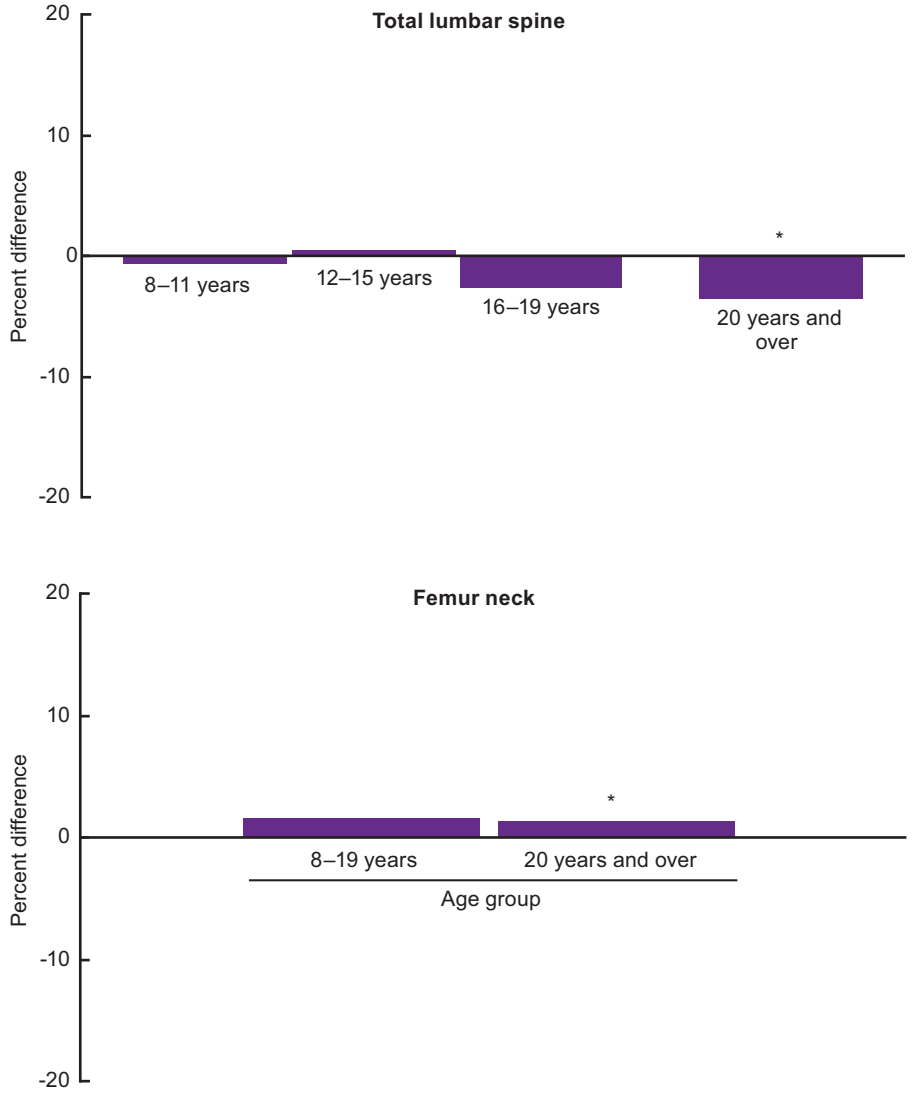
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 5. Smoothed mean total proximal femur bone mineral density of persons aged 8 years and over, by age and race and ethnicity: United States, 2005–2008



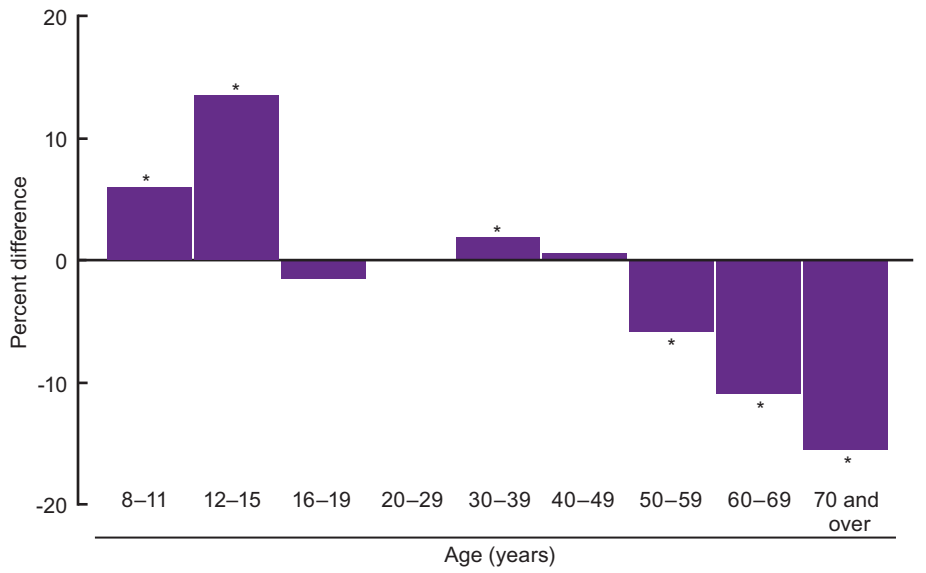
* $p < 0.05$ compared with non-Hispanic white persons.
NOTE: Percent difference in means is adjusted for age and sex.
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 6. Percent difference in mean bone mineral density of non-Hispanic black compared with non-Hispanic white persons aged 8 years and over, by skeletal site and age: United States, 2005–2008



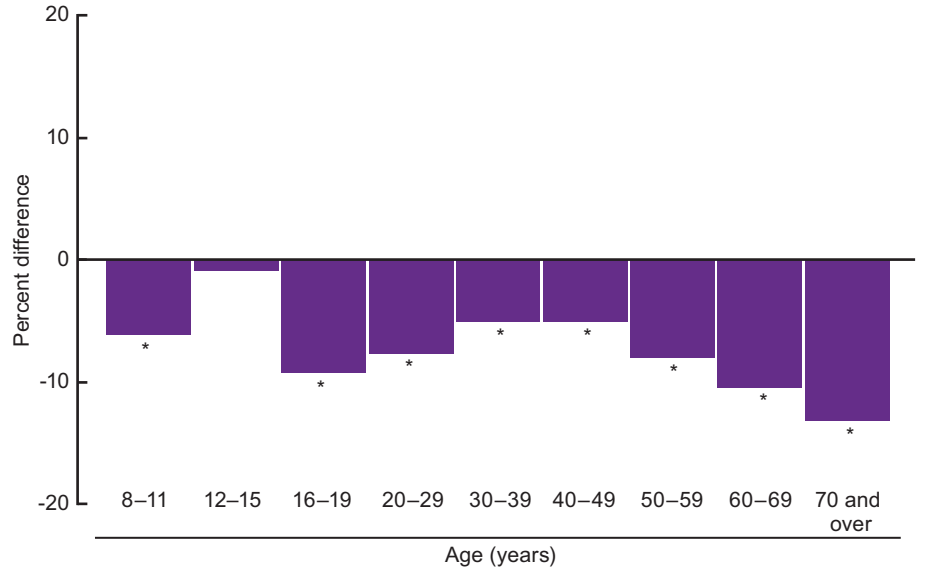
* $p < 0.05$ compared with non-Hispanic white persons.
NOTE: Percent difference in means is adjusted for sex (age groups 8–11, 12–15, and 16–19) or age and sex (age groups 8–19 and 20 and over).
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 7. Percent difference in mean bone mineral density of Mexican-American compared with non-Hispanic white persons aged 8 years and over, by skeletal site and age: United States, 2005–2008



* $p < 0.05$ compared with males.
NOTE: Percent difference in means is adjusted for race and ethnicity.
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 8. Percent difference in mean lumbar spine bone mineral density in females compared with males aged 8 years and over, by age: United States, 2005–2008



* $p < 0.05$ compared with males.
NOTE: Percent difference in means is adjusted for race and ethnicity.
SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

Figure 9. Percent difference in mean femur neck bone mineral density in females compared with males aged 8 years and over, by age: United States, 2005–2008

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Table 1. Total lumbar spine (L1–L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	0.622	0.086	0.488	0.518	0.530	0.562	0.612	0.681	0.716	0.735	0.769
12–15 years	783	0.815	0.148	0.576	0.622	0.645	0.701	0.805	0.922	0.978	1.017	1.071
16–19 years	773	1.026	0.127	0.813	0.865	0.898	0.939	1.026	1.106	1.161	1.187	1.241
20–29 years	704	1.061	0.115	0.884	0.919	0.947	0.982	1.051	1.134	1.175	1.212	1.257
30–39 years	714	1.045	0.121	0.848	0.888	0.914	0.958	1.046	1.123	1.169	1.190	1.250
40–49 years	665	1.051	0.133	0.844	0.879	0.911	0.950	1.044	1.141	1.188	1.223	1.271
50–59 years	583	1.052	0.147	0.814	0.854	0.894	0.954	1.049	1.150	1.199	1.245	1.306
60–69 years	527	1.068	0.148	0.820	0.872	0.912	0.979	1.060	1.161	1.212	1.254	1.311
70–79 years	326	1.075	0.176	0.809	0.852	0.886	0.966	1.064	1.175	1.261	1.310	1.395
80 years and over	161	1.087	0.205	0.800	0.859	0.888	0.947	1.058	1.170	1.274	1.370	†
20 years and over, age adjusted	3,680	1.057	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	0.607	0.080	0.477	0.504	0.519	0.555	0.600	0.657	0.685	0.707	0.753
12–15 years	231	0.828	0.147	0.581	0.631	0.678	0.732	0.820	0.923	0.989	1.013	1.059
16–19 years	216	0.989	0.116	0.800	0.830	0.869	0.906	0.989	1.068	1.106	1.135	1.176
20–29 years	191	1.033	0.100	0.881	0.907	0.927	0.954	1.017	1.097	1.140	1.165	1.206
30–39 years	149	1.026	0.124	0.801	0.869	0.897	0.956	1.017	1.104	1.134	1.172	1.253
40–49 years	140	0.990	0.117	0.809	0.835	0.858	0.909	0.985	1.064	1.102	1.155	1.196
50–59 years	98	1.000	0.148	0.763	0.803	0.838	0.889	1.004	1.090	1.140	1.195	1.271
60–69 years	94	*1.033	0.164	*0.812	*0.820	*0.859	*0.905	*1.011	*1.127	*1.166	*1.218	†
70–79 years	31	*1.012	0.162	†	†	*0.839	*0.864	*1.006	*1.137	*1.150	*1.224	†
80 years and over	12	*0.992	0.139	†	†	†	*0.915	*0.979	*1.056	*1.093	†	†
20 years and over, age adjusted	715	1.013	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	0.621	0.084	0.483	0.515	0.528	0.562	0.610	0.683	0.714	0.731	0.762
12–15 years	220	0.813	0.146	0.590	0.622	0.636	0.701	0.798	0.912	0.974	0.988	1.072
16–19 years	225	1.020	0.124	0.796	0.851	0.891	0.940	1.026	1.095	1.150	1.182	1.229
20–29 years	281	1.057	0.110	0.883	0.918	0.947	0.979	1.051	1.128	1.169	1.206	1.247
30–39 years	329	1.042	0.117	0.851	0.888	0.914	0.956	1.049	1.114	1.162	1.182	1.230
40–49 years	300	1.051	0.129	0.848	0.879	0.912	0.948	1.042	1.138	1.178	1.219	1.267
50–59 years	305	1.053	0.143	0.814	0.855	0.895	0.959	1.051	1.152	1.194	1.232	1.294
60–69 years	228	1.070	0.142	0.821	0.878	0.919	0.983	1.068	1.163	1.208	1.241	1.297
70–79 years	208	1.068	0.177	0.804	0.834	0.882	0.951	1.052	1.169	1.246	1.308	1.392
80 years and over	126	1.093	0.208	0.817	0.862	0.892	0.952	1.060	1.175	1.284	1.385	1.470
20 years and over, age adjusted	1,777	1.056	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	0.659	0.091	0.523	0.558	0.571	0.595	0.651	0.717	0.750	0.767	0.808
12–15 years	231	0.832	0.148	0.578	0.639	0.667	0.732	0.835	0.933	0.987	1.017	1.073
16–19 years	255	1.069	0.128	0.881	0.915	0.934	0.971	1.058	1.144	1.218	1.239	1.288
20–29 years	157	1.124	0.138	0.911	0.943	0.990	1.039	1.115	1.189	1.258	1.316	1.348
30–39 years	139	1.113	0.130	0.903	0.958	0.975	1.021	1.120	1.183	1.236	1.286	†
40–49 years	140	1.107	0.142	0.887	0.952	0.982	1.013	1.086	1.188	1.251	1.280	1.387
50–59 years	108	1.125	0.162	0.882	0.921	0.948	1.000	1.108	1.233	1.307	1.353	1.406
60–69 years	139	1.117	0.171	0.832	0.887	0.936	1.014	1.116	1.224	1.305	1.337	1.385
70–79 years	62	*1.174	0.162	*0.872	*0.973	*0.988	*1.054	*1.172	*1.278	*1.355	*1.398	*1.432
80 years and over	13	*1.126	0.209	†	†	†	*0.947	*1.064	†	†	†	†
20 years and over, age adjusted	758	1.121	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	0.660	0.120	0.501	0.527	0.543	0.570	0.638	0.731	0.783	0.823	0.881
12–15 years	707	0.928	0.139	0.698	0.745	0.782	0.836	0.933	1.014	1.062	1.092	1.161
16–19 years	631	1.010	0.114	0.832	0.864	0.891	0.927	1.005	1.082	1.125	1.153	1.216
20–29 years	591	1.063	0.115	0.884	0.923	0.944	0.979	1.059	1.150	1.179	1.201	1.251
30–39 years	641	1.068	0.118	0.875	0.916	0.949	0.991	1.069	1.144	1.190	1.213	1.252
40–49 years	744	1.058	0.135	0.851	0.906	0.932	0.965	1.051	1.144	1.190	1.229	1.274
50–59 years	588	0.989	0.144	0.772	0.808	0.834	0.886	0.975	1.085	1.150	1.180	1.232
60–69 years	578	0.953	0.145	0.736	0.786	0.813	0.851	0.939	1.046	1.110	1.149	1.219
70–79 years	313	0.904	0.166	0.646	0.711	0.740	0.787	0.892	1.003	1.067	1.107	1.176
80 years and over	154	0.931	0.151	0.684	0.737	0.781	0.813	0.919	1.038	1.103	1.126	1.157
20 years and over, age adjusted	3,609	1.021	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 1. Total lumbar spine (L1–L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	0.657	0.120	0.501	0.515	0.527	0.561	0.644	0.734	0.772	0.811	0.874
12–15 years	228	0.913	0.118	0.721	0.757	0.781	0.842	0.912	0.980	1.019	1.056	1.101
16–19 years	178	0.983	0.112	0.815	0.830	0.853	0.891	0.982	1.055	1.091	1.111	1.140
20–29 years	144	1.024	0.110	0.845	0.881	0.908	0.948	1.010	1.106	1.155	1.179	1.197
30–39 years	149	1.056	0.133	0.844	0.896	0.928	0.965	1.056	1.124	1.177	1.207	†
40–49 years	136	1.036	0.110	0.855	0.893	0.926	0.948	1.044	1.108	1.150	1.167	1.208
50–59 years	99	*0.960	0.171	*0.701	*0.742	*0.797	*0.840	*0.955	*1.055	*1.110	*1.140	*1.249
60–69 years	126	*0.895	0.138	*0.686	*0.713	*0.735	*0.780	*0.909	*0.981	*1.011	*1.066	*1.116
70–79 years	40	*0.825	0.150	†	*0.628	*0.663	*0.698	*0.829	*0.915	*0.961	*1.036	†
80 years and over	6	*0.791	0.218	†	†	†	†	*0.719	†	†	†	†
20 years and over, age adjusted	700	0.983	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	0.651	0.111	0.497	0.529	0.546	0.568	0.627	0.710	0.772	0.798	0.864
12–15 years	178	0.920	0.138	0.692	0.741	0.770	0.829	0.926	1.008	1.056	1.080	1.138
16–19 years	172	1.004	0.107	0.832	0.861	0.892	0.923	1.001	1.075	1.106	1.139	1.172
20–29 years	236	1.064	0.106	0.888	0.932	0.947	0.980	1.060	1.148	1.176	1.189	1.242
30–39 years	258	1.065	0.110	0.886	0.921	0.947	0.991	1.070	1.133	1.168	1.207	1.233
40–49 years	348	1.056	0.134	0.850	0.908	0.932	0.962	1.049	1.140	1.185	1.218	1.263
50–59 years	281	0.993	0.141	0.781	0.813	0.832	0.889	0.978	1.090	1.151	1.179	1.230
60–69 years	245	0.952	0.142	0.738	0.792	0.814	0.847	0.935	1.047	1.107	1.148	1.211
70–79 years	197	0.902	0.167	0.637	0.712	0.738	0.777	0.891	0.994	1.060	1.107	1.178
80 years and over	117	0.932	0.141	0.690	0.738	0.784	0.820	0.927	1.034	1.094	1.126	1.155
20 years and over, age adjusted	1,682	1.020	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.713	0.134	0.523	0.558	0.587	0.613	0.692	0.810	0.844	0.864	0.948
12–15 years	225	0.986	0.135	0.734	0.803	0.851	0.894	0.996	1.083	1.134	1.171	1.197
16–19 years	202	1.077	0.115	0.898	0.936	0.952	0.996	1.062	1.148	1.201	1.239	†
20–29 years	127	1.118	0.131	0.864	0.937	0.979	1.026	1.139	1.201	1.246	1.287	1.320
30–39 years	142	1.130	0.119	0.933	1.008	1.019	1.054	1.119	1.201	1.241	1.256	1.303
40–49 years	164	1.108	0.150	0.873	0.922	0.947	1.006	1.096	1.199	1.245	1.285	1.337
50–59 years	131	1.039	0.132	0.839	0.867	0.899	0.934	1.035	1.144	1.167	1.212	1.248
60–69 years	139	1.029	0.163	0.766	0.826	0.872	0.933	1.018	1.121	1.191	1.235	†
70–79 years	52	*0.997	0.143	*0.753	*0.808	*0.857	*0.914	*1.009	*1.074	*1.115	*1.166	†
80 years and over	22	*0.948	0.222	†	†	*0.768	*0.792	*0.844	*1.079	†	†	†
20 years and over, age adjusted	777	1.079	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

† Standard error not calculated by SUDAAN.

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 2. Lumbar spine vertebra 1 (L1) bone mineral density (gm/cm^2) of persons aged 8 years and over by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	0.571	0.095	0.430	0.455	0.475	0.502	0.556	0.640	0.681	0.701	0.742
12–15 years	788	0.772	0.155	0.508	0.553	0.596	0.659	0.769	0.877	0.942	0.978	1.038
16–19 years	775	0.969	0.131	0.758	0.806	0.837	0.878	0.962	1.050	1.109	1.145	1.188
20–29 years	719	0.994	0.121	0.806	0.846	0.869	0.911	0.987	1.069	1.112	1.151	1.199
30–39 years	738	0.991	0.126	0.796	0.841	0.863	0.899	0.983	1.069	1.119	1.150	1.214
40–49 years	698	1.001	0.139	0.779	0.817	0.859	0.902	0.991	1.103	1.152	1.178	1.216
50–59 years	633	0.989	0.142	0.757	0.805	0.842	0.900	0.984	1.085	1.126	1.168	1.251
60–69 years	656	0.996	0.149	0.746	0.813	0.839	0.897	0.994	1.094	1.148	1.188	1.246
70–79 years	440	1.003	0.171	0.737	0.797	0.835	0.887	0.985	1.107	1.184	1.220	1.288
80 years and over	234	0.989	0.181	0.706	0.778	0.815	0.860	0.977	1.086	1.167	1.223	1.296
20 years and over, age adjusted	4,118	0.995	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	0.558	0.092	0.422	0.445	0.467	0.500	0.541	0.619	0.663	0.687	0.724
12–15 years	234	0.785	0.152	0.513	0.577	0.607	0.685	0.793	0.877	0.924	0.955	1.025
16–19 years	217	0.941	0.123	0.740	0.789	0.812	0.855	0.941	1.026	1.076	1.103	1.165
20–29 years	196	0.975	0.115	0.791	0.832	0.860	0.899	0.963	1.047	1.095	1.117	1.181
30–39 years	152	0.974	0.126	0.773	0.807	0.841	0.886	0.961	1.067	1.104	1.127	1.198
40–49 years	149	0.943	0.120	0.737	0.773	0.806	0.856	0.950	1.015	1.062	1.106	1.146
50–59 years	104	0.945	0.147	0.707	0.734	0.779	0.837	0.945	1.051	1.109	1.150	1.192
60–69 years	111	0.962	0.155	0.716	0.772	0.794	0.841	0.956	1.060	1.112	1.144	1.205
70–79 years	40	*0.939	0.165	†	*0.746	*0.750	*0.794	*0.926	*1.050	*1.106	*1.140	*1.201
80 years and over	13	*0.936	0.145	†	†	†	*0.795	*0.952	*1.034	*1.056	†	†
20 years and over, age adjusted	765	0.957	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	0.571	0.094	0.433	0.454	0.475	0.499	0.557	0.640	0.683	0.699	0.740
12–15 years	221	0.770	0.156	0.504	0.552	0.595	0.651	0.768	0.874	0.943	0.984	1.029
16–19 years	225	0.964	0.131	0.745	0.800	0.835	0.877	0.957	1.050	1.103	1.142	1.183
20–29 years	283	0.988	0.115	0.810	0.855	0.869	0.909	0.982	1.061	1.107	1.136	1.184
30–39 years	343	0.990	0.121	0.806	0.843	0.859	0.901	0.983	1.057	1.110	1.148	1.204
40–49 years	318	1.001	0.138	0.778	0.813	0.862	0.903	0.995	1.099	1.148	1.177	1.212
50–59 years	327	0.990	0.137	0.757	0.824	0.850	0.902	0.987	1.086	1.123	1.157	1.224
60–69 years	284	1.000	0.145	0.755	0.824	0.853	0.901	1.001	1.094	1.148	1.184	1.247
70–79 years	288	1.003	0.174	0.732	0.792	0.835	0.887	0.984	1.114	1.184	1.220	1.282
80 years and over	186	0.990	0.184	0.706	0.788	0.816	0.857	0.978	1.089	1.172	1.235	1.325
20 years and over, age adjusted	2,029	0.994	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	199	0.603	0.105	0.447	0.481	0.493	0.527	0.599	0.669	0.707	0.744	0.762
12–15 years	232	0.780	0.154	0.507	0.561	0.615	0.688	0.782	0.887	0.935	0.963	1.025
16–19 years	256	0.998	0.124	0.806	0.840	0.875	0.915	0.995	1.068	1.131	1.160	1.211
20–29 years	163	1.052	0.147	0.807	0.861	0.903	0.968	1.033	1.137	1.202	1.243	1.294
30–39 years	145	1.046	0.142	0.837	0.875	0.889	0.943	1.042	1.126	1.189	1.228	1.271
40–49 years	145	1.045	0.146	0.835	0.884	0.910	0.941	1.021	1.155	1.199	1.259	1.308
50–59 years	121	1.057	0.166	0.801	0.861	0.886	0.921	1.035	1.196	1.237	1.277	1.368
60–69 years	182	1.026	0.180	0.700	0.798	0.832	0.905	1.023	1.145	1.195	1.233	1.292
70–79 years	79	*1.053	0.162	*0.799	*0.861	*0.904	*0.943	*1.023	*1.128	*1.246	*1.292	*1.333
80 years and over	22	*1.017	0.159	†	†	*0.820	*0.897	*1.021	*1.101	†	†	†
20 years and over, age adjusted	857	1.046	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	747	0.590	0.125	0.426	0.447	0.466	0.491	0.561	0.671	0.727	0.761	0.815
12–15 years	717	0.853	0.142	0.617	0.670	0.710	0.762	0.850	0.944	0.991	1.041	1.092
16–19 years	678	0.917	0.119	0.742	0.767	0.792	0.832	0.909	0.997	1.038	1.064	1.122
20–29 years	636	0.960	0.124	0.757	0.810	0.838	0.872	0.960	1.040	1.093	1.121	1.161
30–39 years	654	0.961	0.129	0.765	0.805	0.832	0.867	0.953	1.042	1.091	1.127	1.185
40–49 years	783	0.958	0.143	0.739	0.786	0.811	0.856	0.953	1.047	1.094	1.132	1.208
50–59 years	630	0.886	0.149	0.660	0.702	0.725	0.780	0.874	0.985	1.049	1.084	1.139
60–69 years	677	0.838	0.144	0.621	0.672	0.692	0.726	0.831	0.937	0.984	1.026	1.080
70–79 years	429	0.795	0.170	0.544	0.609	0.632	0.681	0.778	0.893	0.957	0.996	1.117
80 years and over	235	0.798	0.162	0.553	0.591	0.622	0.677	0.787	0.911	0.973	1.011	1.066
20 years and over, age adjusted	4,044	0.914	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 2. Lumbar spine vertebra 1 (L1) bone mineral density (gm/cm^2) of persons aged 8 years and over by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	0.585	0.128	0.417	0.438	0.456	0.482	0.564	0.670	0.729	0.748	0.792
12–15 years	231	0.834	0.115	0.650	0.691	0.717	0.763	0.825	0.902	0.953	0.985	1.044
16–19 years	187	0.887	0.120	0.694	0.736	0.750	0.802	0.890	0.963	0.991	1.028	1.060
20–29 years	149	0.933	0.122	0.734	0.763	0.809	0.849	0.924	1.018	1.054	1.100	1.145
30–39 years	149	0.953	0.139	0.737	0.784	0.811	0.859	0.937	1.037	1.094	1.118	†
40–49 years	141	0.947	0.118	0.729	0.791	0.820	0.866	0.952	1.020	1.061	1.097	1.130
50–59 years	107	*0.867	0.172	*0.618	*0.646	*0.692	*0.744	*0.861	*0.954	*1.004	*1.046	*1.143
60–69 years	138	*0.801	0.138	*0.581	*0.626	*0.658	*0.707	*0.791	*0.895	*0.942	*0.954	*1.018
70–79 years	49	*0.714	0.142	†	*0.502	*0.537	*0.642	*0.704	*0.794	*0.857	*0.913	†
80 years and over	11	*0.689	0.192	†	†	†	†	*0.630	*0.759	†	†	†
20 years and over, age adjusted	744	0.887	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	0.583	0.118	0.431	0.446	0.470	0.491	0.558	0.654	0.702	0.755	0.804
12–15 years	184	0.850	0.143	0.601	0.661	0.694	0.757	0.851	0.941	0.982	1.037	1.091
16–19 years	196	0.910	0.111	0.744	0.768	0.789	0.822	0.907	0.991	1.028	1.046	1.078
20–29 years	258	0.960	0.116	0.768	0.816	0.844	0.876	0.957	1.030	1.083	1.110	1.155
30–39 years	267	0.956	0.124	0.766	0.802	0.826	0.866	0.952	1.033	1.078	1.117	1.161
40–49 years	366	0.956	0.143	0.744	0.787	0.811	0.853	0.951	1.043	1.092	1.130	1.208
50–59 years	300	0.889	0.145	0.667	0.705	0.728	0.781	0.880	0.982	1.048	1.079	1.143
60–69 years	291	0.836	0.143	0.624	0.672	0.692	0.724	0.830	0.935	0.983	1.020	1.058
70–79 years	271	0.792	0.170	0.559	0.609	0.630	0.680	0.773	0.884	0.948	0.994	1.117
80 years and over	179	0.798	0.158	0.556	0.593	0.626	0.688	0.788	0.908	0.970	1.006	1.043
20 years and over, age adjusted	1,932	0.913	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.639	0.137	0.434	0.481	0.495	0.535	0.639	0.727	0.772	0.813	0.872
12–15 years	226	0.897	0.137	0.660	0.714	0.744	0.805	0.899	0.994	1.031	1.076	1.110
16–19 years	212	0.971	0.124	0.779	0.829	0.849	0.878	0.960	1.052	1.101	1.137	†
20–29 years	139	1.005	0.142	0.737	0.817	0.843	0.907	1.023	1.099	1.135	1.177	1.228
30–39 years	146	1.014	0.126	0.831	0.864	0.883	0.922	1.003	1.080	1.140	1.172	1.226
40–49 years	172	1.003	0.162	0.729	0.799	0.828	0.886	1.002	1.100	1.157	1.207	1.257
50–59 years	143	0.929	0.142	0.718	0.765	0.790	0.821	0.923	1.027	1.080	1.111	1.154
60–69 years	170	0.907	0.150	0.681	0.725	0.755	0.788	0.903	1.006	1.062	1.096	1.172
70–79 years	76	*0.880	0.160	*0.645	*0.689	*0.725	*0.780	*0.876	*0.976	*1.029	*1.076	*1.129
80 years and over	31	*0.834	0.183	†	*0.638	*0.651	*0.671	*0.780	*0.950	*1.093	*1.121	†
20 years and over, age adjusted	877	0.966	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 3. Lumbar spine vertebra 2 (L2) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	0.620	0.088	0.483	0.510	0.531	0.555	0.616	0.678	0.711	0.736	0.771
12–15 years	789	0.822	0.156	0.589	0.615	0.649	0.706	0.810	0.931	0.995	1.037	1.080
16–19 years	776	1.039	0.136	0.809	0.863	0.897	0.942	1.035	1.122	1.179	1.224	1.278
20–29 years	724	1.078	0.123	0.887	0.931	0.950	0.995	1.069	1.152	1.212	1.242	1.297
30–39 years	749	1.069	0.133	0.857	0.893	0.931	0.984	1.064	1.151	1.199	1.239	1.308
40–49 years	717	1.067	0.141	0.848	0.889	0.918	0.966	1.062	1.163	1.222	1.255	1.302
50–59 years	656	1.060	0.154	0.811	0.861	0.897	0.953	1.062	1.159	1.211	1.256	1.329
60–69 years	658	1.080	0.155	0.824	0.873	0.919	0.978	1.076	1.185	1.244	1.284	1.324
70–79 years	443	1.071	0.180	0.798	0.857	0.882	0.943	1.065	1.179	1.241	1.304	1.396
80 years and over	227	1.070	0.213	0.786	0.825	0.862	0.926	1.040	1.175	1.276	1.321	1.438
20 years and over, age adjusted	4,174	1.070	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	0.599	0.083	0.455	0.485	0.512	0.547	0.600	0.647	0.678	0.710	0.742
12–15 years	235	0.831	0.156	0.566	0.622	0.666	0.724	0.822	0.931	1.002	1.043	1.090
16–19 years	216	1.002	0.128	0.804	0.830	0.872	0.911	1.001	1.094	1.125	1.178	1.208
20–29 years	198	1.048	0.107	0.871	0.909	0.932	0.977	1.043	1.114	1.153	1.189	1.233
30–39 years	156	1.039	0.134	0.792	0.869	0.899	0.951	1.035	1.118	1.169	1.208	1.290
40–49 years	152	1.005	0.126	0.801	0.843	0.864	0.920	0.998	1.092	1.123	1.167	1.220
50–59 years	106	1.007	0.149	0.766	0.816	0.849	0.898	1.007	1.098	1.170	1.191	1.229
60–69 years	111	1.032	0.166	0.795	0.841	0.857	0.895	1.009	1.131	1.215	1.252	1.347
70–79 years	42	*1.016	0.169	†	*0.799	*0.838	*0.880	*1.030	*1.100	*1.211	*1.225	†
80 years and over	13	*0.999	0.134	†	†	†	*0.883	*0.997	*1.048	*1.076	†	†
20 years and over, age adjusted	778	1.024	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	207	0.622	0.085	0.495	0.511	0.534	0.557	0.617	0.679	0.711	0.730	0.768
12–15 years	221	0.821	0.155	0.588	0.612	0.644	0.700	0.813	0.919	0.986	1.029	1.088
16–19 years	226	1.035	0.134	0.797	0.861	0.892	0.940	1.035	1.116	1.167	1.210	1.278
20–29 years	287	1.075	0.118	0.887	0.934	0.950	0.996	1.067	1.147	1.212	1.238	1.293
30–39 years	345	1.070	0.130	0.864	0.892	0.925	0.992	1.069	1.151	1.199	1.239	1.313
40–49 years	327	1.067	0.138	0.852	0.889	0.918	0.966	1.061	1.161	1.215	1.250	1.302
50–59 years	336	1.062	0.151	0.814	0.865	0.900	0.959	1.064	1.159	1.212	1.253	1.325
60–69 years	289	1.085	0.149	0.837	0.875	0.920	0.981	1.082	1.187	1.243	1.277	1.324
70–79 years	291	1.066	0.181	0.783	0.847	0.878	0.935	1.055	1.168	1.233	1.297	1.395
80 years and over	179	1.071	0.218	0.777	0.822	0.862	0.928	1.042	1.172	1.278	1.324	1.446
20 years and over, age adjusted	2,054	1.070	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	0.656	0.093	0.516	0.549	0.563	0.591	0.642	0.711	0.753	0.768	0.815
12–15 years	231	0.834	0.152	0.599	0.650	0.673	0.736	0.820	0.942	0.991	1.021	1.075
16–19 years	257	1.077	0.135	0.878	0.909	0.934	0.976	1.063	1.165	1.227	1.251	1.326
20–29 years	162	1.143	0.147	0.890	0.969	1.011	1.046	1.128	1.232	1.292	1.351	1.385
30–39 years	147	1.132	0.141	0.907	0.951	0.976	1.035	1.136	1.212	1.259	1.299	1.359
40–49 years	152	1.117	0.148	0.888	0.939	0.977	1.009	1.109	1.207	1.266	1.299	1.368
50–59 years	126	1.131	0.164	0.891	0.919	0.952	1.018	1.100	1.225	1.323	1.357	1.435
60–69 years	184	1.127	0.190	0.810	0.881	0.934	1.004	1.113	1.274	1.319	1.369	1.427
70–79 years	77	*1.163	0.172	*0.883	*0.925	*0.970	*1.039	*1.153	*1.270	*1.364	*1.405	*1.459
80 years and over	21	*1.145	0.189	†	†	†	*0.973	*1.089	*1.289	†	†	†
20 years and over, age adjusted	869	1.133	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	747	0.657	0.121	0.492	0.522	0.543	0.566	0.631	0.729	0.788	0.828	0.875
12–15 years	718	0.936	0.146	0.692	0.742	0.786	0.840	0.933	1.032	1.076	1.107	1.190
16–19 years	679	1.018	0.126	0.813	0.860	0.892	0.931	1.009	1.099	1.139	1.179	1.230
20–29 years	641	1.069	0.124	0.871	0.909	0.931	0.980	1.066	1.157	1.196	1.223	1.276
30–39 years	662	1.076	0.129	0.867	0.916	0.945	0.990	1.073	1.153	1.208	1.239	1.290
40–49 years	783	1.066	0.145	0.849	0.889	0.927	0.970	1.062	1.149	1.206	1.251	1.300
50–59 years	644	0.991	0.155	0.761	0.804	0.826	0.874	0.985	1.092	1.152	1.196	1.253
60–69 years	681	0.951	0.156	0.715	0.764	0.796	0.837	0.933	1.059	1.114	1.160	1.228
70–79 years	420	0.894	0.171	0.631	0.694	0.730	0.776	0.890	0.989	1.054	1.116	1.184
80 years and over	213	0.902	0.176	0.631	0.673	0.720	0.782	0.895	1.027	1.093	1.135	1.199
20 years and over, age adjusted	4,044	1.023	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 3. Lumbar spine vertebra 2 (L2) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	0.649	0.122	0.488	0.505	0.524	0.548	0.633	0.721	0.762	0.819	0.875
12–15 years	231	0.909	0.123	0.721	0.748	0.778	0.840	0.909	0.981	1.016	1.058	1.114
16–19 years	187	0.988	0.123	0.796	0.819	0.845	0.910	0.982	1.062	1.106	1.120	1.161
20–29 years	150	1.033	0.119	0.839	0.876	0.903	0.949	1.023	1.115	1.154	1.188	1.235
30–39 years	149	1.063	0.133	0.856	0.900	0.916	0.971	1.059	1.137	1.185	1.207	†
40–49 years	142	1.042	0.116	0.832	0.883	0.918	0.962	1.050	1.112	1.151	1.172	1.222
50–59 years	107	0.955	0.170	0.683	0.745	0.775	0.824	0.947	1.055	1.118	1.142	1.221
60–69 years	145	*0.874	0.140	*0.652	*0.697	*0.710	*0.773	*0.870	*0.965	*1.010	*1.062	*1.101
70–79 years	52	*0.806	0.161	†	*0.590	*0.622	*0.682	*0.802	*0.898	*0.976	*0.994	†
80 years and over	8	*0.791	0.220	†	†	†	†	*0.743	†	†	†	†
20 years and over, age adjusted	753	0.983	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	0.648	0.111	0.496	0.524	0.545	0.567	0.624	0.702	0.771	0.802	0.857
12–15 years	184	0.933	0.148	0.685	0.736	0.774	0.830	0.933	1.031	1.067	1.098	†
16–19 years	197	1.008	0.119	0.810	0.851	0.883	0.924	0.999	1.092	1.123	1.152	1.201
20–29 years	261	1.070	0.119	0.873	0.912	0.941	0.982	1.066	1.157	1.192	1.218	1.268
30–39 years	272	1.074	0.123	0.870	0.921	0.948	0.991	1.069	1.143	1.191	1.236	1.282
40–49 years	365	1.065	0.144	0.855	0.892	0.925	0.967	1.063	1.148	1.204	1.245	1.292
50–59 years	305	0.994	0.154	0.764	0.807	0.825	0.875	0.987	1.100	1.154	1.194	1.253
60–69 years	287	0.951	0.154	0.720	0.764	0.796	0.830	0.934	1.059	1.111	1.158	1.225
70–79 years	257	0.892	0.169	0.645	0.697	0.726	0.780	0.887	0.982	1.049	1.092	1.183
80 years and over	158	0.902	0.168	0.634	0.673	0.721	0.786	0.901	0.999	1.088	1.126	1.194
20 years and over, age adjusted	1,905	1.023	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.712	0.139	0.517	0.554	0.578	0.614	0.690	0.796	0.847	0.891	0.961
12–15 years	227	0.993	0.143	0.735	0.800	0.832	0.897	1.004	1.089	1.145	1.181	1.209
16–19 years	212	1.090	0.125	0.894	0.937	0.968	1.000	1.093	1.163	1.227	1.251	†
20–29 years	139	1.122	0.131	0.880	0.925	0.968	1.034	1.147	1.212	1.247	1.280	1.316
30–39 years	148	1.133	0.129	0.923	1.000	1.017	1.044	1.105	1.209	1.248	1.286	1.354
40–49 years	172	1.124	0.162	0.866	0.911	0.955	1.012	1.126	1.215	1.274	1.316	1.387
50–59 years	152	1.036	0.140	0.827	0.854	0.889	0.932	1.027	1.134	1.174	1.224	1.259
60–69 years	170	1.023	0.162	0.766	0.816	0.862	0.914	1.014	1.121	1.208	1.228	1.299
70–79 years	74	*0.996	0.160	*0.733	*0.798	*0.858	*0.900	*0.976	*1.078	*1.139	*1.159	*1.251
80 years and over	33	*0.932	0.228	†	*0.712	*0.720	*0.753	*0.866	*1.061	*1.191	†	†
20 years and over, age adjusted	888	1.082	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 4. Lumbar spine vertebra 3 (L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	716	0.648	0.085	0.509	0.538	0.554	0.592	0.645	0.704	0.732	0.756	0.789
12–15 years	789	0.833	0.148	0.611	0.640	0.669	0.716	0.825	0.941	0.998	1.027	1.082
16–19 years	777	1.048	0.133	0.826	0.876	0.910	0.964	1.043	1.139	1.188	1.218	1.283
20–29 years	724	1.085	0.125	0.890	0.928	0.957	1.000	1.079	1.168	1.210	1.246	1.298
30–39 years	743	1.061	0.136	0.842	0.888	0.923	0.965	1.055	1.151	1.195	1.234	1.277
40–49 years	719	1.061	0.141	0.844	0.883	0.920	0.960	1.056	1.156	1.207	1.243	1.294
50–59 years	639	1.067	0.163	0.806	0.849	0.883	0.946	1.067	1.181	1.240	1.271	1.340
60–69 years	630	1.101	0.164	0.846	0.897	0.932	0.991	1.096	1.205	1.276	1.313	1.379
70–79 years	412	1.107	0.187	0.823	0.875	0.914	0.975	1.088	1.223	1.296	1.365	1.438
80 years and over	215	1.101	0.215	0.807	0.854	0.889	0.946	1.078	1.195	1.327	1.418	1.516
20 years and over, age adjusted	4,082	1.076	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	0.627	0.082	0.490	0.523	0.537	0.570	0.626	0.682	0.708	0.724	0.768
12–15 years	234	0.845	0.147	0.607	0.642	0.678	0.745	0.832	0.940	1.011	1.037	1.074
16–19 years	217	1.004	0.117	0.810	0.839	0.862	0.921	1.004	1.087	1.122	1.146	1.205
20–29 years	199	1.047	0.106	0.886	0.914	0.937	0.973	1.034	1.106	1.155	1.191	1.251
30–39 years	156	1.031	0.136	0.794	0.852	0.886	0.944	1.029	1.114	1.161	1.203	1.246
40–49 years	155	0.996	0.129	0.791	0.825	0.860	0.905	0.981	1.071	1.121	1.167	1.241
50–59 years	105	1.014	0.159	0.754	0.810	0.835	0.886	1.010	1.100	1.212	1.222	1.295
60–69 years	111	*1.059	0.172	*0.789	*0.857	*0.892	*0.926	*1.049	*1.145	*1.212	*1.278	*1.383
70–79 years	38	*1.036	0.165	†	*0.829	*0.857	*0.880	*1.044	*1.123	*1.195	*1.283	†
80 years and over	13	*0.981	0.159	†	†	†	*0.859	*0.954	*1.111	*1.150	†	†
20 years and over, age adjusted	777	1.025	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	208	0.649	0.082	0.509	0.539	0.551	0.594	0.649	0.710	0.731	0.746	0.782
12–15 years	221	0.831	0.146	0.618	0.641	0.666	0.712	0.823	0.937	0.988	1.012	1.074
16–19 years	226	1.042	0.130	0.819	0.873	0.908	0.964	1.043	1.134	1.181	1.203	1.240
20–29 years	286	1.084	0.119	0.883	0.930	0.956	1.003	1.079	1.166	1.202	1.232	1.286
30–39 years	341	1.060	0.132	0.860	0.891	0.927	0.963	1.059	1.149	1.191	1.229	1.270
40–49 years	327	1.061	0.138	0.848	0.887	0.921	0.960	1.055	1.156	1.201	1.236	1.288
50–59 years	327	1.069	0.158	0.824	0.853	0.890	0.956	1.069	1.183	1.239	1.269	1.338
60–69 years	276	1.105	0.159	0.851	0.903	0.937	0.993	1.108	1.208	1.271	1.297	1.369
70–79 years	273	1.102	0.186	0.821	0.869	0.912	0.968	1.083	1.216	1.290	1.354	1.435
80 years and over	169	1.104	0.216	0.807	0.854	0.889	0.946	1.079	1.197	1.334	1.420	1.517
20 years and over, age adjusted	1,999	1.076	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	198	0.680	0.089	0.540	0.579	0.594	0.622	0.666	0.731	0.777	0.795	0.838
12–15 years	232	0.854	0.152	0.596	0.669	0.702	0.741	0.852	0.956	1.000	1.038	1.111
16–19 years	257	1.096	0.136	0.900	0.938	0.957	0.999	1.080	1.178	1.256	1.291	1.344
20–29 years	163	1.152	0.147	0.931	0.967	1.018	1.057	1.144	1.225	1.312	1.348	1.399
30–39 years	146	1.142	0.142	0.932	0.969	1.001	1.033	1.140	1.232	1.288	1.331	1.402
40–49 years	151	1.121	0.145	0.894	0.954	0.988	1.023	1.107	1.210	1.278	1.310	1.371
50–59 years	121	1.151	0.172	0.885	0.924	0.953	1.033	1.144	1.265	1.330	1.354	1.441
60–69 years	170	1.154	0.186	0.861	0.910	0.948	1.026	1.148	1.280	1.349	1.393	1.453
70–79 years	71	*1.215	0.185	*0.924	*0.965	*0.995	*1.045	*1.211	*1.368	*1.406	*1.459	*1.505
80 years and over	19	*1.194	0.234	†	†	†	*0.969	*1.144	*1.353	†	†	†
20 years and over, age adjusted	841	1.150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	745	0.689	0.121	0.525	0.552	0.574	0.605	0.671	0.760	0.809	0.856	0.910
12–15 years	715	0.963	0.145	0.718	0.775	0.812	0.869	0.968	1.052	1.109	1.133	1.198
16–19 years	663	1.048	0.122	0.856	0.886	0.915	0.960	1.048	1.123	1.168	1.198	1.263
20–29 years	629	1.105	0.121	0.915	0.953	0.973	1.020	1.098	1.185	1.233	1.271	1.313
30–39 years	664	1.112	0.126	0.912	0.948	0.979	1.031	1.111	1.193	1.240	1.263	1.305
40–49 years	790	1.100	0.142	0.877	0.932	0.962	1.005	1.087	1.184	1.236	1.284	1.333
50–59 years	641	1.033	0.153	0.806	0.841	0.868	0.916	1.029	1.142	1.206	1.238	1.282
60–69 years	663	1.000	0.167	0.758	0.809	0.839	0.883	0.976	1.102	1.175	1.232	1.313
70–79 years	402	0.956	0.173	0.690	0.733	0.777	0.848	0.947	1.063	1.135	1.180	1.246
80 years and over	207	0.967	0.171	0.677	0.762	0.799	0.844	0.957	1.095	1.176	1.190	1.231
20 years and over, age adjusted	3,996	1.064	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 4. Lumbar spine vertebra 3 (L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	0.684	0.120	0.514	0.538	0.565	0.588	0.676	0.765	0.793	0.840	0.897
12–15 years	231	0.941	0.124	0.733	0.782	0.817	0.865	0.941	1.012	1.051	1.081	1.131
16–19 years	184	1.019	0.120	0.840	0.872	0.892	0.925	1.015	1.093	1.140	1.157	1.194
20–29 years	149	1.056	0.112	0.870	0.918	0.930	0.974	1.052	1.128	1.177	1.195	1.245
30–39 years	149	1.096	0.141	0.902	0.924	0.956	1.011	1.095	1.169	1.229	1.273	1.303
40–49 years	141	1.065	0.110	0.891	0.922	0.947	0.979	1.071	1.129	1.161	1.207	1.250
50–59 years	112	0.985	0.174	0.731	0.791	0.823	0.846	0.986	1.073	1.137	1.188	1.267
60–69 years	147	0.927	0.148	0.708	0.730	0.749	0.811	0.933	1.016	1.074	1.117	1.192
70–79 years	53	*0.861	0.163	†	*0.663	*0.687	*0.755	*0.857	*0.952	*0.998	*1.050	†
80 years and over	10	*0.795	0.208	†	†	†	†	*0.708	*0.866	†	†	†
20 years and over, age adjusted	761	1.014	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	0.680	0.110	0.534	0.558	0.579	0.603	0.658	0.732	0.793	0.835	0.891
12–15 years	181	0.955	0.144	0.722	0.758	0.802	0.852	0.954	1.051	1.090	1.117	1.190
16–19 years	189	1.039	0.114	0.854	0.882	0.913	0.954	1.044	1.115	1.154	1.181	1.213
20–29 years	259	1.104	0.113	0.924	0.961	0.979	1.024	1.098	1.176	1.225	1.257	1.290
30–39 years	273	1.107	0.116	0.920	0.949	0.976	1.032	1.108	1.185	1.226	1.247	1.287
40–49 years	371	1.098	0.139	0.877	0.937	0.964	1.004	1.088	1.182	1.232	1.280	1.331
50–59 years	299	1.038	0.150	0.813	0.851	0.871	0.923	1.030	1.146	1.207	1.238	1.278
60–69 years	281	1.000	0.166	0.765	0.814	0.838	0.883	0.974	1.102	1.173	1.233	1.315
70–79 years	244	0.955	0.173	0.690	0.735	0.773	0.847	0.947	1.061	1.135	1.180	1.241
80 years and over	154	0.973	0.164	0.683	0.767	0.801	0.850	0.975	1.108	1.177	1.192	1.221
20 years and over, age adjusted	1,881	1.064	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.742	0.138	0.535	0.588	0.611	0.646	0.722	0.826	0.871	0.915	0.990
12–15 years	227	1.024	0.142	0.759	0.838	0.875	0.932	1.023	1.121	1.186	1.204	1.235
16–19 years	208	1.118	0.124	0.918	0.947	0.980	1.040	1.103	1.195	1.251	1.273	1.356
20–29 years	133	1.171	0.135	0.912	0.991	1.031	1.079	1.193	1.266	1.308	1.328	1.365
30–39 years	148	1.180	0.129	0.960	1.038	1.053	1.107	1.171	1.271	1.299	1.314	1.360
40–49 years	174	1.154	0.164	0.893	0.950	0.988	1.041	1.147	1.266	1.312	1.335	1.430
50–59 years	148	1.076	0.146	0.846	0.875	0.908	0.960	1.074	1.179	1.232	1.264	1.331
60–69 years	157	1.078	0.178	0.792	0.872	0.896	0.974	1.063	1.186	1.256	1.296	1.353
70–79 years	71	*1.041	0.160	*0.788	*0.830	*0.885	*0.939	*1.038	*1.119	*1.193	*1.235	*1.307
80 years and over	28	*0.970	0.236	†	†	*0.749	*0.802	*0.883	*1.141	†	†	†
20 years and over, age adjusted	859	1.125	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 5. Lumbar spine vertebra 4 (L4) bone mineral density (gm/cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	716	0.638	0.091	0.504	0.525	0.542	0.570	0.627	0.700	0.736	0.761	0.793
12–15 years	789	0.827	0.146	0.601	0.642	0.667	0.721	0.815	0.934	0.989	1.028	1.070
16–19 years	776	1.038	0.129	0.834	0.871	0.901	0.950	1.033	1.122	1.181	1.219	1.261
20–29 years	718	1.078	0.124	0.891	0.923	0.956	0.999	1.066	1.157	1.203	1.236	1.294
30–39 years	736	1.057	0.132	0.838	0.891	0.918	0.967	1.055	1.138	1.190	1.226	1.275
40–49 years	706	1.063	0.144	0.845	0.881	0.907	0.955	1.057	1.159	1.211	1.258	1.305
50–59 years	635	1.078	0.163	0.815	0.874	0.912	0.968	1.073	1.182	1.264	1.293	1.355
60–69 years	598	1.109	0.168	0.808	0.890	0.934	0.992	1.112	1.216	1.296	1.331	1.380
70–79 years	403	1.126	0.189	0.847	0.879	0.930	0.995	1.115	1.228	1.304	1.380	1.450
80 years and over	200	1.131	0.216	0.836	0.896	0.924	0.969	1.098	1.242	1.337	1.414	1.539
20 years and over, age adjusted	3,996	1.080	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	0.630	0.085	0.504	0.524	0.536	0.568	0.625	0.680	0.710	0.746	0.792
12–15 years	235	0.846	0.147	0.596	0.676	0.693	0.746	0.839	0.950	1.008	1.022	1.103
16–19 years	217	1.002	0.119	0.798	0.837	0.871	0.920	0.995	1.083	1.122	1.154	1.189
20–29 years	198	1.050	0.105	0.880	0.919	0.941	0.974	1.035	1.114	1.160	1.196	1.255
30–39 years	153	1.044	0.128	0.801	0.868	0.910	0.971	1.042	1.116	1.173	1.197	1.258
40–49 years	151	1.000	0.123	0.806	0.841	0.870	0.925	0.991	1.069	1.121	1.180	†
50–59 years	106	1.036	0.162	0.771	0.802	0.848	0.921	1.032	1.131	1.226	1.240	1.331
60–69 years	104	*1.077	0.171	*0.810	*0.879	*0.924	*0.968	*1.049	*1.179	*1.244	*1.313	*1.386
70–79 years	43	*1.067	0.171	†	*0.839	*0.872	*0.943	*1.052	*1.179	*1.255	*1.280	†
80 years and over	12	*1.010	0.152	†	†	†	*0.900	*1.001	*1.084	*1.138	†	†
20 years and over, age adjusted	767	1.038	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	208	0.635	0.089	0.501	0.521	0.538	0.567	0.623	0.704	0.728	0.752	0.788
12–15 years	220	0.822	0.142	0.605	0.646	0.667	0.720	0.804	0.921	0.976	1.016	1.054
16–19 years	226	1.031	0.125	0.829	0.868	0.893	0.949	1.026	1.107	1.166	1.195	1.239
20–29 years	286	1.074	0.119	0.892	0.922	0.956	0.993	1.066	1.147	1.193	1.224	1.283
30–39 years	336	1.051	0.127	0.837	0.890	0.915	0.958	1.057	1.132	1.166	1.207	1.262
40–49 years	320	1.061	0.139	0.849	0.882	0.908	0.957	1.055	1.158	1.199	1.242	1.302
50–59 years	326	1.079	0.158	0.821	0.884	0.916	0.974	1.076	1.179	1.264	1.287	1.342
60–69 years	268	1.109	0.163	0.811	0.887	0.932	0.998	1.114	1.215	1.293	1.325	1.360
70–79 years	265	1.118	0.189	0.831	0.873	0.919	0.989	1.107	1.207	1.301	1.375	1.437
80 years and over	161	1.135	0.216	0.847	0.896	0.923	0.969	1.112	1.246	1.338	1.419	1.535
20 years and over, age adjusted	1,962	1.077	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	0.681	0.094	0.540	0.572	0.592	0.610	0.668	0.737	0.770	0.801	0.849
12–15 years	232	0.850	0.148	0.603	0.657	0.692	0.744	0.859	0.938	0.993	1.056	1.095
16–19 years	256	1.090	0.137	0.889	0.920	0.947	0.986	1.076	1.179	1.247	1.279	1.315
20–29 years	158	1.150	0.141	0.928	0.992	1.024	1.071	1.134	1.227	1.272	1.327	1.393
30–39 years	147	1.139	0.146	0.926	0.975	0.995	1.031	1.138	1.219	1.254	1.314	1.398
40–49 years	148	1.132	0.156	0.893	0.950	0.988	1.041	1.107	1.214	1.273	1.322	1.435
50–59 years	118	1.167	0.171	0.915	0.950	0.982	1.036	1.154	1.272	1.352	1.393	1.484
60–69 years	154	1.185	0.190	0.895	0.935	0.963	1.052	1.192	1.289	1.391	1.437	1.504
70–79 years	67	*1.242	0.179	*0.922	*0.996	*1.051	*1.088	*1.241	*1.372	*1.442	*1.465	*1.493
80 years and over	15	*1.216	0.239	†	†	†	*1.008	*1.111	*1.276	†	†	†
20 years and over, age adjusted	807	1.161	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	742	0.686	0.122	0.524	0.550	0.565	0.593	0.669	0.755	0.814	0.848	0.919
12–15 years	709	0.954	0.144	0.718	0.775	0.808	0.861	0.960	1.043	1.086	1.133	1.187
16–19 years	636	1.038	0.117	0.847	0.892	0.917	0.956	1.030	1.110	1.155	1.182	1.266
20–29 years	604	1.090	0.119	0.902	0.950	0.974	1.005	1.085	1.169	1.212	1.238	1.284
30–39 years	659	1.099	0.121	0.900	0.951	0.977	1.018	1.099	1.178	1.220	1.246	1.294
40–49 years	767	1.093	0.140	0.881	0.933	0.963	1.001	1.087	1.179	1.234	1.261	1.339
50–59 years	626	1.034	0.148	0.805	0.844	0.866	0.930	1.030	1.129	1.188	1.226	1.280
60–69 years	644	1.015	0.160	0.777	0.822	0.862	0.908	0.994	1.118	1.190	1.241	1.297
70–79 years	372	0.978	0.175	0.694	0.756	0.790	0.853	0.974	1.086	1.153	1.202	1.260
80 years and over	193	1.000	0.173	0.731	0.786	0.809	0.863	0.985	1.138	1.194	1.215	1.277
20 years and over, age adjusted	3,865	1.063	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 5. Lumbar spine vertebra 4 (L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	0.690	0.121	0.528	0.548	0.562	0.597	0.671	0.764	0.815	0.838	0.929
12–15 years	228	0.948	0.127	0.739	0.777	0.812	0.872	0.945	1.021	1.062	1.085	1.166
16–19 years	178	1.016	0.111	0.838	0.850	0.896	0.944	1.026	1.087	1.121	1.150	1.179
20–29 years	146	1.054	0.111	0.875	0.915	0.933	0.983	1.042	1.127	1.177	1.201	†
30–39 years	149	1.090	0.139	0.870	0.912	0.943	0.994	1.085	1.176	1.217	1.263	†
40–49 years	138	1.067	0.123	0.876	0.913	0.931	0.962	1.057	1.150	1.202	1.234	1.272
50–59 years	109	*0.998	0.175	*0.739	*0.771	*0.823	*0.885	*0.980	*1.106	*1.165	*1.195	*1.252
60–69 years	142	0.944	0.154	0.702	0.750	0.767	0.823	0.944	1.051	1.092	1.122	1.204
70–79 years	50	*0.899	0.149	†	*0.679	*0.771	*0.799	*0.883	*0.989	*1.036	*1.119	†
80 years and over	9	*0.820	0.165	†	†	†	†	*0.790	†	†	†	†
20 years and over, age adjusted	743	1.021	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	0.676	0.115	0.525	0.547	0.564	0.583	0.656	0.748	0.794	0.834	0.903
12–15 years	179	0.942	0.141	0.706	0.774	0.803	0.848	0.947	1.039	1.075	1.105	1.159
16–19 years	175	1.034	0.113	0.844	0.893	0.918	0.954	1.026	1.100	1.145	1.169	1.248
20–29 years	240	1.088	0.112	0.902	0.953	0.982	1.006	1.086	1.167	1.199	1.223	1.259
30–39 years	268	1.095	0.112	0.902	0.962	0.979	1.018	1.098	1.160	1.207	1.226	1.267
40–49 years	363	1.091	0.138	0.881	0.933	0.965	1.005	1.085	1.167	1.221	1.251	1.318
50–59 years	294	1.038	0.145	0.810	0.848	0.865	0.932	1.031	1.131	1.191	1.224	1.280
60–69 years	275	1.013	0.157	0.790	0.825	0.863	0.907	0.991	1.113	1.188	1.235	1.287
70–79 years	234	0.980	0.177	0.691	0.752	0.789	0.870	0.973	1.081	1.157	1.203	1.260
80 years and over	144	1.002	0.168	0.729	0.785	0.814	0.868	0.990	1.139	1.193	1.205	1.264
20 years and over, age adjusted	1,818	1.062	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.741	0.134	0.550	0.582	0.612	0.646	0.713	0.827	0.861	0.918	0.965
12–15 years	226	1.016	0.142	0.765	0.820	0.872	0.926	1.015	1.109	1.171	1.204	1.237
16–19 years	204	1.103	0.113	0.928	0.959	0.986	1.025	1.090	1.185	1.226	1.270	†
20–29 years	131	1.146	0.135	0.930	0.973	0.990	1.042	1.151	1.233	1.286	1.331	1.372
30–39 years	148	1.163	0.124	0.952	1.009	1.041	1.084	1.147	1.243	1.280	1.307	1.352
40–49 years	169	1.145	0.151	0.903	0.954	0.977	1.035	1.147	1.243	1.276	1.309	1.392
50–59 years	143	1.080	0.138	0.863	0.913	0.940	0.997	1.062	1.160	1.203	1.264	1.320
60–69 years	152	1.098	0.176	0.805	0.879	0.920	0.973	1.097	1.211	1.296	1.324	†
70–79 years	57	*1.062	0.142	*0.794	*0.895	*0.940	*0.976	*1.050	*1.145	*1.199	*1.225	*1.254
80 years and over	25	*1.038	0.219	†	†	*0.833	*0.861	*0.948	*1.193	†	†	†
20 years and over, age adjusted	825	1.122	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

† Standard error not calculated by SUDAAN.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 6. Lumbar spine vertebrae 1 and 2 (L1, L2) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	1.192	0.179	0.917	0.982	1.011	1.067	1.171	1.321	1.384	1.427	1.521
12–15 years	786	1.594	0.308	1.107	1.187	1.240	1.367	1.582	1.813	1.943	1.997	2.126
16–19 years	774	2.009	0.263	1.583	1.686	1.737	1.817	2.001	2.172	2.292	2.368	2.469
20–29 years	717	2.073	0.238	1.706	1.782	1.836	1.908	2.060	2.216	2.305	2.401	2.488
30–39 years	735	2.060	0.251	1.679	1.731	1.796	1.890	2.042	2.215	2.314	2.363	2.514
40–49 years	692	2.072	0.271	1.653	1.737	1.794	1.875	2.065	2.262	2.366	2.422	2.534
50–59 years	624	2.051	0.289	1.583	1.660	1.755	1.861	2.047	2.237	2.331	2.411	2.568
60–69 years	626	2.075	0.293	1.557	1.689	1.775	1.884	2.080	2.260	2.383	2.423	2.572
70–79 years	408	2.073	0.343	1.583	1.645	1.725	1.840	2.065	2.298	2.425	2.485	2.656
80 years and over	209	2.066	0.385	1.504	1.623	1.683	1.829	2.034	2.246	2.411	2.538	2.736
20 years and over, age adjusted	4,011	2.066	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	1.158	0.169	0.882	0.946	0.976	1.046	1.144	1.262	1.328	1.395	1.464
12–15 years	233	1.615	0.304	1.089	1.177	1.283	1.404	1.622	1.815	1.929	1.990	2.123
16–19 years	216	1.943	0.246	1.549	1.637	1.687	1.771	1.940	2.109	2.192	2.264	2.364
20–29 years	195	2.022	0.215	1.691	1.735	1.788	1.889	2.003	2.164	2.247	2.292	2.409
30–39 years	152	2.014	0.254	1.584	1.708	1.728	1.849	2.007	2.183	2.271	2.333	2.497
40–49 years	146	1.956	0.237	1.560	1.655	1.700	1.787	1.963	2.109	2.203	2.252	2.348
50–59 years	102	1.949	0.285	1.503	1.567	1.593	1.745	1.948	2.117	2.232	2.319	2.419
60–69 years	106	1.999	0.317	1.552	1.585	1.644	1.737	1.963	2.183	2.296	2.397	2.554
70–79 years	36	*1.956	0.325	†	*1.555	*1.616	*1.713	*1.940	*2.200	*2.295	*2.395	†
80 years and over	13	*1.935	0.271	†	†	†	*1.730	*1.933	*2.069	*2.112	†	†
20 years and over, age adjusted	750	1.983	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	1.193	0.176	0.919	0.984	1.005	1.067	1.173	1.333	1.383	1.424	1.522
12–15 years	221	1.592	0.309	1.096	1.188	1.236	1.355	1.579	1.798	1.930	1.997	2.133
16–19 years	225	2.000	0.260	1.556	1.683	1.725	1.813	2.002	2.161	2.284	2.349	2.445
20–29 years	283	2.064	0.226	1.723	1.787	1.834	1.909	2.058	2.208	2.298	2.356	2.461
30–39 years	342	2.059	0.243	1.680	1.731	1.796	1.892	2.044	2.209	2.313	2.353	2.498
40–49 years	316	2.073	0.268	1.653	1.734	1.794	1.875	2.068	2.258	2.360	2.423	2.535
50–59 years	323	2.055	0.280	1.588	1.696	1.771	1.875	2.056	2.240	2.326	2.380	2.530
60–69 years	270	2.084	0.282	1.597	1.697	1.781	1.891	2.085	2.266	2.382	2.419	2.570
70–79 years	263	2.069	0.348	1.553	1.635	1.716	1.840	2.060	2.299	2.428	2.476	2.648
80 years and over	164	2.072	0.392	1.508	1.624	1.694	1.829	2.035	2.238	2.412	2.554	2.752
20 years and over, age adjusted	1,961	2.066	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	198	1.260	0.195	0.949	1.020	1.069	1.113	1.250	1.378	1.451	1.503	1.566
12–15 years	231	1.614	0.303	1.113	1.198	1.298	1.425	1.607	1.828	1.907	1.973	2.108
16–19 years	256	2.077	0.254	1.691	1.744	1.809	1.898	2.064	2.237	2.346	2.408	2.525
20–29 years	162	2.194	0.288	1.729	1.850	1.914	2.021	2.161	2.347	2.493	2.568	2.682
30–39 years	143	2.177	0.276	1.736	1.834	1.892	1.961	2.201	2.329	2.419	2.524	2.623
40–49 years	145	2.163	0.289	1.743	1.824	1.894	1.957	2.121	2.352	2.441	2.555	2.675
50–59 years	120	2.189	0.327	1.685	1.798	1.866	1.951	2.130	2.410	2.583	2.628	2.802
60–69 years	176	2.148	0.359	1.513	1.711	1.807	1.913	2.154	2.379	2.500	2.586	2.682
70–79 years	76	*2.209	0.317	*1.707	*1.789	*1.882	*1.972	*2.179	*2.360	*2.621	*2.666	*2.760
80 years and over	20	*2.143	0.345	†	†	*1.674	*1.884	*2.081	*2.380	†	†	†
20 years and over, age adjusted	842	2.177	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	747	1.247	0.243	0.938	0.981	1.016	1.067	1.204	1.386	1.495	1.594	1.702
12–15 years	717	1.789	0.284	1.311	1.422	1.499	1.600	1.784	1.982	2.069	2.137	2.279
16–19 years	678	1.935	0.240	1.561	1.644	1.688	1.757	1.921	2.095	2.179	2.220	2.338
20–29 years	635	2.029	0.242	1.632	1.728	1.788	1.850	2.021	2.196	2.277	2.352	2.426
30–39 years	650	2.037	0.251	1.655	1.740	1.782	1.874	2.033	2.194	2.294	2.353	2.462
40–49 years	776	2.025	0.282	1.599	1.684	1.746	1.826	2.016	2.190	2.305	2.373	2.495
50–59 years	624	1.874	0.298	1.440	1.503	1.563	1.655	1.854	2.082	2.206	2.267	2.372
60–69 years	653	1.785	0.286	1.352	1.456	1.494	1.564	1.780	1.985	2.111	2.171	2.281
70–79 years	399	1.685	0.337	1.161	1.301	1.373	1.475	1.666	1.872	1.983	2.118	2.295
80 years and over	204	1.700	0.334	1.178	1.260	1.356	1.452	1.704	1.921	2.061	2.122	2.238
20 years and over, age adjusted	3,941	1.937	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 6. Lumbar spine vertebrae 1 and 2 (L1, L2) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	1.235	0.247	0.907	0.950	0.984	1.030	1.210	1.398	1.483	1.553	1.657
12–15 years	231	1.744	0.234	1.380	1.454	1.496	1.598	1.728	1.888	1.971	2.028	2.153
16–19 years	187	1.876	0.237	1.480	1.563	1.610	1.720	1.893	2.015	2.113	2.152	2.201
20–29 years	149	1.968	0.236	1.579	1.642	1.729	1.822	1.933	2.142	2.215	2.295	2.387
30–39 years	149	2.017	0.266	1.597	1.670	1.758	1.837	1.997	2.162	2.273	2.323	†
40–49 years	141	1.989	0.227	1.574	1.691	1.763	1.838	2.002	2.126	2.208	2.266	2.346
50–59 years	103	*1.821	0.343	*1.303	*1.372	*1.468	*1.581	*1.815	*2.022	*2.112	*2.184	*2.401
60–69 years	134	*1.676	0.268	*1.290	*1.337	*1.380	*1.467	*1.659	*1.842	*1.944	*2.018	*2.107
70–79 years	46	*1.506	0.294	†	*1.107	*1.172	*1.268	*1.500	*1.639	*1.824	*1.972	†
80 years and over	8	*1.512	0.441	†	†	†	†	*1.528	†	†	†	†
20 years and over, age adjusted	730	1.871	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	1.232	0.226	0.939	0.989	1.021	1.068	1.174	1.365	1.467	1.544	1.661
12–15 years	184	1.784	0.288	1.289	1.416	1.473	1.589	1.787	1.984	2.044	2.127	2.262
16–19 years	196	1.917	0.225	1.557	1.644	1.684	1.747	1.918	2.080	2.143	2.199	2.262
20–29 years	258	2.030	0.229	1.664	1.740	1.796	1.856	2.019	2.187	2.269	2.349	2.424
30–39 years	265	2.032	0.240	1.660	1.740	1.777	1.881	2.035	2.178	2.288	2.324	2.446
40–49 years	360	2.021	0.282	1.617	1.681	1.746	1.821	2.009	2.189	2.300	2.370	2.476
50–59 years	299	1.880	0.294	1.449	1.508	1.557	1.658	1.858	2.090	2.212	2.245	2.350
60–69 years	278	1.780	0.281	1.352	1.460	1.494	1.563	1.779	1.984	2.099	2.161	2.264
70–79 years	248	1.678	0.335	1.163	1.301	1.372	1.474	1.662	1.860	1.963	2.095	2.294
80 years and over	153	1.696	0.319	1.195	1.260	1.355	1.467	1.705	1.907	2.047	2.097	2.223
20 years and over, age adjusted	1,861	1.935	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	1.351	0.273	0.957	1.039	1.074	1.157	1.316	1.529	1.609	1.717	1.822
12–15 years	226	1.889	0.276	1.396	1.501	1.580	1.708	1.908	2.083	2.164	2.268	2.312
16–19 years	212	2.062	0.244	1.687	1.772	1.809	1.895	2.053	2.225	2.315	2.381	†
20–29 years	138	2.128	0.268	1.595	1.747	1.834	1.935	2.169	2.293	2.378	2.439	†
30–39 years	144	2.145	0.248	1.784	1.873	1.910	1.982	2.115	2.277	2.382	2.456	2.538
40–49 years	171	2.129	0.318	1.601	1.715	1.796	1.931	2.109	2.316	2.417	2.535	2.624
50–59 years	143	1.968	0.275	1.562	1.623	1.686	1.745	1.957	2.178	2.261	2.323	2.379
60–69 years	166	1.931	0.306	1.423	1.566	1.634	1.714	1.930	2.133	2.249	2.335	2.460
70–79 years	73	*1.877	0.317	*1.395	*1.492	*1.565	*1.662	*1.865	*2.081	*2.167	*2.226	*2.396
80 years and over	31	*1.779	0.406	†	*1.356	*1.388	*1.436	*1.670	*2.044	†	†	†
20 years and over, age adjusted	866	2.050	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 7. Lumbar spine vertebrae 1 and 3 (L1, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	1.220	0.175	0.947	1.009	1.039	1.092	1.199	1.350	1.405	1.444	1.524
12–15 years	786	1.606	0.299	1.137	1.203	1.264	1.385	1.600	1.817	1.931	1.998	2.132
16–19 years	775	2.017	0.256	1.603	1.693	1.756	1.845	2.010	2.174	2.299	2.361	2.449
20–29 years	715	2.079	0.236	1.720	1.781	1.842	1.925	2.059	2.240	2.325	2.392	2.466
30–39 years	729	2.052	0.249	1.657	1.746	1.792	1.872	2.052	2.214	2.300	2.350	2.469
40–49 years	689	2.064	0.268	1.668	1.728	1.786	1.866	2.039	2.255	2.337	2.404	2.495
50–59 years	603	2.057	0.295	1.563	1.669	1.741	1.859	2.055	2.249	2.355	2.441	2.571
60–69 years	590	2.094	0.299	1.583	1.722	1.798	1.877	2.087	2.278	2.393	2.483	2.579
70–79 years	371	2.109	0.348	1.590	1.691	1.749	1.880	2.098	2.325	2.491	2.567	2.747
80 years and over	193	2.090	0.390	1.538	1.650	1.695	1.817	2.032	2.284	2.476	2.613	2.854
20 years and over, age adjusted	3,890	2.071	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	1.186	0.166	0.933	0.996	1.012	1.077	1.163	1.304	1.370	1.400	1.477
12–15 years	232	1.630	0.293	1.126	1.211	1.318	1.441	1.632	1.829	1.923	1.986	2.117
16–19 years	217	1.945	0.231	1.559	1.655	1.689	1.774	1.950	2.100	2.178	2.240	2.308
20–29 years	194	2.025	0.210	1.715	1.751	1.804	1.890	1.993	2.169	2.252	2.311	2.386
30–39 years	152	2.006	0.252	1.566	1.660	1.738	1.838	1.985	2.155	2.245	2.311	2.443
40–49 years	148	1.940	0.238	1.547	1.629	1.669	1.764	1.938	2.088	2.157	2.274	2.351
50–59 years	100	1.953	0.294	1.461	1.551	1.616	1.723	1.982	2.133	2.202	2.346	2.509
60–69 years	105	*2.017	0.323	*1.547	*1.601	*1.667	*1.756	*1.995	*2.180	*2.296	*2.408	*2.573
70–79 years	33	*1.960	0.318	†	†	*1.627	*1.710	*1.940	*2.184	*2.242	*2.387	†
80 years and over	13	*1.918	0.292	†	†	†	*1.666	*1.941	*2.095	*2.156	†	†
20 years and over, age adjusted	745	1.980	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	1.221	0.170	0.943	1.008	1.037	1.093	1.200	1.356	1.403	1.431	1.519
12–15 years	221	1.601	0.298	1.141	1.203	1.261	1.369	1.586	1.813	1.930	1.980	2.140
16–19 years	225	2.007	0.252	1.571	1.683	1.728	1.847	2.008	2.168	2.294	2.346	2.442
20–29 years	282	2.070	0.224	1.715	1.784	1.845	1.925	2.055	2.206	2.318	2.378	2.448
30–39 years	338	2.048	0.239	1.680	1.759	1.802	1.870	2.060	2.203	2.268	2.337	2.457
40–49 years	312	2.065	0.264	1.679	1.720	1.790	1.865	2.040	2.255	2.334	2.406	2.494
50–59 years	313	2.061	0.284	1.569	1.694	1.754	1.861	2.059	2.249	2.347	2.411	2.560
60–69 years	252	2.103	0.288	1.591	1.736	1.804	1.881	2.091	2.281	2.391	2.461	2.574
70–79 years	239	2.103	0.350	1.543	1.685	1.744	1.874	2.087	2.322	2.490	2.561	2.729
80 years and over	150	2.096	0.393	1.553	1.655	1.697	1.833	2.040	2.285	2.472	2.623	2.867
20 years and over, age adjusted	1,886	2.070	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	1.284	0.189	0.983	1.061	1.095	1.152	1.275	1.409	1.477	1.520	1.572
12–15 years	232	1.635	0.300	1.108	1.245	1.302	1.435	1.644	1.848	1.937	1.999	2.128
16–19 years	256	2.096	0.252	1.734	1.775	1.831	1.922	2.074	2.271	2.376	2.426	2.534
20–29 years	163	2.204	0.286	1.752	1.850	1.917	2.041	2.181	2.351	2.531	2.573	2.687
30–39 years	142	2.185	0.269	1.778	1.842	1.913	1.981	2.192	2.336	2.473	2.540	†
40–49 years	144	2.168	0.281	1.754	1.870	1.928	1.970	2.131	2.351	2.455	2.533	2.712
50–59 years	114	2.207	0.332	1.731	1.787	1.867	1.934	2.158	2.425	2.576	2.668	2.727
60–69 years	160	2.172	0.349	1.588	1.709	1.814	1.944	2.155	2.418	2.496	2.604	2.740
70–79 years	70	*2.271	0.339	*1.737	*1.813	*1.911	*1.999	*2.223	*2.501	*2.695	*2.767	*2.790
80 years and over	18	*2.189	0.392	†	†	†	*1.828	*2.041	*2.465	†	†	†
20 years and over, age adjusted	811	2.194	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	1.280	0.241	0.963	1.014	1.050	1.098	1.245	1.415	1.532	1.618	1.718
12–15 years	714	1.814	0.278	1.342	1.452	1.533	1.636	1.809	1.994	2.063	2.176	2.271
16–19 years	661	1.964	0.233	1.604	1.672	1.722	1.786	1.955	2.110	2.185	2.261	2.377
20–29 years	624	2.065	0.236	1.687	1.782	1.821	1.901	2.058	2.232	2.301	2.377	2.446
30–39 years	650	2.074	0.245	1.690	1.758	1.825	1.906	2.075	2.243	2.319	2.369	2.480
40–49 years	777	2.057	0.275	1.644	1.740	1.796	1.864	2.038	2.243	2.329	2.413	2.508
50–59 years	614	1.915	0.294	1.503	1.560	1.617	1.687	1.895	2.116	2.241	2.311	2.415
60–69 years	630	1.836	0.295	1.397	1.497	1.543	1.619	1.813	2.003	2.161	2.245	2.378
70–79 years	375	1.742	0.331	1.224	1.356	1.414	1.515	1.730	1.942	2.066	2.125	2.300
80 years and over	188	1.765	0.303	1.268	1.393	1.449	1.545	1.757	1.979	2.129	2.162	2.208
20 years and over, age adjusted	3,858	1.978	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 7. Lumbar spine vertebrae 1 and 3 (L1, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Females—Con.												
Mexican American:												
8–11 years	237	1.270	0.245	0.941	0.993	1.016	1.076	1.252	1.425	1.530	1.573	1.680
12–15 years	231	1.775	0.233	1.402	1.494	1.539	1.610	1.776	1.913	1.991	2.065	2.150
16–19 years	184	1.904	0.232	1.552	1.602	1.641	1.729	1.918	2.050	2.114	2.177	2.248
20–29 years	148	1.988	0.224	1.616	1.692	1.750	1.838	1.965	2.126	2.242	2.286	2.340
30–39 years	149	2.050	0.271	1.627	1.728	1.792	1.883	2.029	2.204	2.311	2.347	†
40–49 years	140	2.013	0.216	1.663	1.744	1.786	1.849	2.016	2.154	2.217	2.272	2.331
50–59 years	106	*1.851	0.343	*1.365	*1.446	*1.515	*1.583	*1.854	*2.039	*2.111	*2.219	*2.435
60–69 years	135	*1.731	0.275	*1.354	*1.381	*1.430	*1.504	*1.736	*1.893	*2.011	*2.074	*2.177
70–79 years	46	*1.567	0.292	†	*1.180	*1.232	*1.398	*1.566	*1.725	*1.812	*1.963	†
80 years and over	10	*1.485	0.407	†	†	†	†	*1.302	*1.644	†	†	†
20 years and over, age adjusted	734	1.901	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	1.265	0.224	0.962	1.019	1.059	1.099	1.222	1.391	1.493	1.582	1.691
12–15 years	181	1.802	0.279	1.332	1.439	1.500	1.613	1.801	1.991	2.049	2.108	2.251
16–19 years	188	1.948	0.217	1.604	1.667	1.726	1.775	1.948	2.099	2.156	2.226	2.284
20–29 years	256	2.065	0.219	1.728	1.789	1.830	1.907	2.047	2.208	2.287	2.366	2.430
30–39 years	265	2.065	0.228	1.693	1.761	1.820	1.909	2.075	2.214	2.291	2.335	2.417
40–49 years	363	2.054	0.272	1.650	1.740	1.797	1.862	2.038	2.247	2.307	2.386	2.499
50–59 years	289	1.923	0.287	1.515	1.575	1.621	1.699	1.896	2.123	2.236	2.303	2.413
60–69 years	268	1.833	0.293	1.416	1.499	1.545	1.617	1.810	2.000	2.159	2.244	2.377
70–79 years	230	1.737	0.330	1.239	1.353	1.412	1.505	1.729	1.937	2.049	2.116	2.291
80 years and over	141	1.773	0.287	1.284	1.400	1.458	1.556	1.768	1.970	2.127	2.163	2.206
20 years and over, age adjusted	1,812	1.976	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	1.381	0.271	0.998	1.072	1.113	1.181	1.351	1.562	1.638	1.696	1.858
12–15 years	226	1.920	0.270	1.412	1.570	1.646	1.731	1.938	2.114	2.193	2.259	2.333
16–19 years	207	2.089	0.239	1.709	1.796	1.849	1.927	2.065	2.253	2.337	2.394	†
20–29 years	133	2.182	0.266	1.645	1.850	1.870	1.993	2.229	2.346	2.453	2.493	2.567
30–39 years	144	2.196	0.244	1.814	1.923	1.978	2.031	2.167	2.347	2.416	2.474	2.588
40–49 years	171	2.155	0.316	1.660	1.768	1.812	1.923	2.132	2.343	2.454	2.531	2.653
50–59 years	139	2.008	0.277	1.590	1.654	1.695	1.778	1.995	2.227	2.325	2.364	2.426
60–69 years	153	1.985	0.319	1.463	1.601	1.672	1.796	1.961	2.182	2.272	2.380	2.538
70–79 years	70	*1.918	0.316	*1.439	*1.558	*1.607	*1.709	*1.886	*2.077	*2.185	*2.307	*2.443
80 years and over	26	*1.794	0.406	†	†	*1.467	*1.519	*1.609	*2.104	†	†	†
20 years and over, age adjusted	836	2.092	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 8. Lumbar spine vertebrae 1 and 4 (L1, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	1.210	0.179	0.942	0.991	1.028	1.084	1.181	1.340	1.413	1.450	1.531
12–15 years	786	1.600	0.296	1.111	1.192	1.263	1.385	1.590	1.815	1.924	1.996	2.110
16–19 years	774	2.008	0.248	1.582	1.688	1.764	1.842	2.003	2.174	2.285	2.332	2.448
20–29 years	709	2.072	0.231	1.728	1.789	1.840	1.916	2.056	2.213	2.304	2.373	2.473
30–39 years	722	2.049	0.243	1.669	1.741	1.790	1.887	2.046	2.200	2.298	2.360	2.462
40–49 years	676	2.066	0.266	1.647	1.721	1.773	1.880	2.064	2.238	2.351	2.412	2.491
50–59 years	599	2.069	0.289	1.580	1.704	1.768	1.883	2.060	2.254	2.354	2.443	2.568
60–69 years	559	2.092	0.295	1.575	1.686	1.806	1.910	2.089	2.272	2.387	2.455	2.606
70–79 years	363	2.117	0.343	1.594	1.704	1.756	1.891	2.094	2.310	2.467	2.580	2.690
80 years and over	179	2.133	0.392	1.565	1.675	1.752	1.859	2.062	2.331	2.518	2.666	2.840
20 years and over, age adjusted	3,807	2.074	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	1.189	0.169	0.936	0.986	1.003	1.072	1.165	1.312	1.368	1.406	1.500
12–15 years	233	1.630	0.292	1.121	1.234	1.323	1.430	1.632	1.818	1.934	1.976	2.106
16–19 years	217	1.944	0.232	1.554	1.657	1.703	1.781	1.936	2.100	2.183	2.240	2.331
20–29 years	193	2.025	0.209	1.710	1.767	1.804	1.894	1.984	2.169	2.238	2.317	2.412
30–39 years	149	2.020	0.241	1.591	1.700	1.760	1.882	1.995	2.163	2.237	2.324	2.468
40–49 years	143	1.942	0.228	1.570	1.632	1.684	1.776	1.940	2.074	2.195	2.256	2.342
50–59 years	101	1.982	0.298	1.506	1.576	1.639	1.763	2.012	2.164	2.257	2.390	2.514
60–69 years	98	*2.030	0.317	*1.574	*1.628	*1.704	*1.794	*1.993	*2.202	*2.288	*2.368	*2.641
70–79 years	37	*2.002	0.326	†	*1.619	*1.632	*1.741	*1.966	*2.288	*2.351	*2.382	†
80 years and over	12	*1.961	0.278	†	†	†	*1.864	*1.945	*2.092	*2.177	†	†
20 years and over, age adjusted	733	1.995	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	1.207	0.177	0.937	0.988	1.020	1.083	1.171	1.348	1.407	1.448	1.529
12–15 years	220	1.593	0.294	1.111	1.191	1.262	1.368	1.582	1.811	1.922	1.968	2.112
16–19 years	225	1.996	0.243	1.567	1.668	1.754	1.842	1.996	2.144	2.249	2.308	2.408
20–29 years	282	2.062	0.220	1.725	1.796	1.839	1.913	2.056	2.203	2.291	2.357	2.437
30–39 years	333	2.040	0.233	1.684	1.737	1.782	1.879	2.045	2.172	2.277	2.330	2.435
40–49 years	306	2.065	0.260	1.648	1.720	1.759	1.882	2.074	2.235	2.325	2.389	2.482
50–59 years	312	2.071	0.281	1.598	1.709	1.768	1.902	2.061	2.257	2.339	2.418	2.557
60–69 years	245	2.095	0.285	1.586	1.690	1.821	1.915	2.096	2.269	2.385	2.453	2.584
70–79 years	233	2.104	0.344	1.576	1.699	1.749	1.871	2.067	2.295	2.464	2.559	2.684
80 years and over	143	2.143	0.395	1.570	1.686	1.763	1.855	2.072	2.344	2.523	2.693	†
20 years and over, age adjusted	1,854	2.070	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	1.286	0.191	1.007	1.066	1.099	1.145	1.262	1.413	1.476	1.515	1.602
12–15 years	232	1.631	0.295	1.106	1.210	1.313	1.465	1.639	1.834	1.901	2.001	2.128
16–19 years	255	2.090	0.250	1.704	1.774	1.811	1.909	2.074	2.257	2.354	2.405	2.484
20–29 years	158	2.198	0.273	1.770	1.856	1.945	2.045	2.157	2.346	2.468	2.566	2.651
30–39 years	143	2.184	0.269	1.802	1.873	1.899	1.981	2.194	2.328	2.433	2.508	†
40–49 years	141	2.177	0.286	1.750	1.876	1.941	2.000	2.128	2.359	2.463	2.539	2.723
50–59 years	111	2.217	0.324	1.759	1.846	1.858	1.938	2.183	2.432	2.590	2.664	2.770
60–69 years	144	2.193	0.340	1.624	1.744	1.840	1.981	2.182	2.425	2.544	2.617	2.742
70–79 years	66	*2.305	0.325	*1.734	*1.906	*1.959	*2.053	*2.294	*2.537	*2.668	*2.714	*2.810
80 years and over	14	*2.191	0.397	†	†	†	*1.899	*2.059	†	†	†	†
20 years and over, age adjusted	777	2.201	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	1.277	0.241	0.961	1.005	1.038	1.091	1.234	1.425	1.535	1.611	1.719
12–15 years	708	1.804	0.274	1.333	1.451	1.533	1.630	1.814	1.963	2.075	2.158	2.272
16–19 years	634	1.956	0.220	1.623	1.672	1.721	1.798	1.934	2.089	2.178	2.241	2.354
20–29 years	598	2.053	0.228	1.673	1.787	1.820	1.887	2.043	2.216	2.286	2.332	2.417
30–39 years	645	2.061	0.236	1.691	1.764	1.828	1.902	2.059	2.208	2.297	2.348	2.427
40–49 years	752	2.050	0.268	1.645	1.744	1.802	1.860	2.038	2.226	2.309	2.394	2.473
50–59 years	599	1.916	0.283	1.491	1.557	1.622	1.721	1.896	2.105	2.207	2.301	2.391
60–69 years	614	1.858	0.285	1.445	1.534	1.567	1.656	1.831	2.039	2.159	2.246	2.355
70–79 years	342	1.763	0.333	1.237	1.385	1.420	1.539	1.732	1.956	2.090	2.163	2.290
80 years and over	175	1.805	0.294	1.350	1.420	1.515	1.575	1.782	2.051	2.146	2.184	2.253
20 years and over, age adjusted	3,725	1.977	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 8. Lumbar spine vertebrae 1 and 4 (L1, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	1.275	0.244	0.958	0.993	1.028	1.075	1.248	1.431	1.539	1.581	1.694
12–15 years	228	1.783	0.232	1.406	1.462	1.541	1.640	1.778	1.920	1.997	2.078	2.169
16–19 years	178	1.903	0.217	1.590	1.618	1.654	1.758	1.903	2.036	2.115	2.160	2.248
20–29 years	145	1.988	0.222	1.652	1.688	1.744	1.833	1.969	2.150	2.252	2.308	2.349
30–39 years	149	2.044	0.267	1.652	1.727	1.793	1.865	2.031	2.203	2.293	2.355	†
40–49 years	137	2.015	0.227	1.620	1.746	1.772	1.832	2.034	2.175	2.268	2.300	2.366
50–59 years	103	*1.872	0.339	*1.370	*1.455	*1.545	*1.655	*1.854	*2.069	*2.154	*2.247	*2.419
60–69 years	130	*1.753	0.278	*1.326	*1.414	*1.441	*1.516	*1.767	*1.929	*2.004	*2.064	*2.219
70–79 years	44	*1.619	0.284	†	*1.264	*1.323	*1.408	*1.622	*1.759	*1.863	*2.060	†
80 years and over	9	*1.497	0.327	†	†	†	†	*1.435	†	†	†	†
20 years and over, age adjusted	717	1.910	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	1.261	0.228	0.961	1.004	1.039	1.088	1.215	1.399	1.509	1.557	1.688
12–15 years	179	1.789	0.274	1.323	1.434	1.495	1.619	1.793	1.962	2.045	2.111	2.215
16–19 years	174	1.947	0.208	1.632	1.679	1.723	1.784	1.927	2.083	2.143	2.191	2.280
20–29 years	237	2.054	0.211	1.677	1.795	1.823	1.893	2.045	2.210	2.275	2.319	2.390
30–39 years	260	2.053	0.220	1.692	1.770	1.823	1.897	2.059	2.188	2.283	2.325	2.408
40–49 years	354	2.045	0.267	1.647	1.743	1.803	1.858	2.033	2.218	2.290	2.374	2.471
50–59 years	284	1.922	0.276	1.501	1.558	1.623	1.723	1.900	2.123	2.194	2.297	2.375
60–69 years	264	1.854	0.281	1.457	1.537	1.567	1.651	1.822	2.037	2.154	2.241	2.338
70–79 years	217	1.761	0.335	1.226	1.383	1.417	1.525	1.725	1.946	2.090	2.163	2.296
80 years and over	132	1.812	0.279	1.350	1.441	1.526	1.590	1.799	2.050	2.135	2.166	2.246
20 years and over, age adjusted	1,748	1.975	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	1.380	0.265	1.013	1.076	1.122	1.183	1.353	1.569	1.653	1.693	1.849
12–15 years	225	1.912	0.268	1.449	1.554	1.629	1.714	1.936	2.096	2.182	2.266	2.327
16–19 years	203	2.076	0.222	1.747	1.790	1.854	1.921	2.036	2.232	2.309	2.383	†
20–29 years	130	2.153	0.262	1.660	1.817	1.878	1.959	2.174	2.323	2.411	2.497	2.571
30–39 years	144	2.178	0.234	1.824	1.917	1.963	2.017	2.143	2.321	2.405	2.437	2.535
40–49 years	165	2.139	0.297	1.634	1.764	1.841	1.933	2.108	2.330	2.407	2.479	2.600
50–59 years	134	2.015	0.262	1.609	1.692	1.762	1.824	2.004	2.206	2.292	2.333	2.448
60–69 years	148	2.003	0.314	1.508	1.603	1.702	1.791	2.012	2.193	2.302	2.400	2.572
70–79 years	55	*1.933	0.282	*1.469	*1.570	*1.663	*1.722	*1.909	*2.061	*2.223	*2.246	*2.316
80 years and over	23	*1.833	0.405	†	†	*1.485	*1.546	*1.626	*2.089	†	†	†
20 years and over, age adjusted	799	2.085	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 9. Lumbar spine vertebrae 2 and 3 (L2, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	1.269	0.169	1.001	1.055	1.092	1.152	1.256	1.378	1.441	1.481	1.552
12–15 years	787	1.656	0.301	1.203	1.257	1.323	1.428	1.625	1.882	1.991	2.070	2.169
16–19 years	776	2.087	0.266	1.639	1.748	1.804	1.905	2.078	2.259	2.359	2.432	2.537
20–29 years	720	2.164	0.242	1.789	1.867	1.909	1.992	2.151	2.314	2.412	2.478	2.574
30–39 years	741	2.128	0.260	1.703	1.792	1.860	1.951	2.114	2.301	2.387	2.449	2.570
40–49 years	709	2.129	0.274	1.690	1.793	1.841	1.931	2.117	2.317	2.414	2.497	2.584
50–59 years	632	2.128	0.311	1.635	1.733	1.788	1.908	2.119	2.339	2.449	2.523	2.642
60–69 years	612	2.176	0.308	1.669	1.780	1.849	1.971	2.168	2.369	2.503	2.565	2.675
70–79 years	387	2.166	0.357	1.633	1.745	1.793	1.910	2.131	2.392	2.541	2.653	2.804
80 years and over	202	2.167	0.424	1.583	1.689	1.771	1.886	2.106	2.371	2.565	2.766	2.944
20 years and over, age adjusted	4,003	2.145	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	1.227	0.161	0.962	1.019	1.053	1.125	1.224	1.310	1.389	1.440	1.507
12–15 years	233	1.676	0.302	1.177	1.275	1.359	1.466	1.647	1.885	2.027	2.071	2.170
16–19 years	216	2.006	0.242	1.618	1.676	1.749	1.834	2.015	2.165	2.252	2.314	2.380
20–29 years	196	2.097	0.203	1.785	1.837	1.878	1.961	2.069	2.222	2.306	2.371	2.435
30–39 years	156	2.071	0.264	1.607	1.731	1.794	1.916	2.062	2.245	2.322	2.400	2.541
40–49 years	151	2.003	0.247	1.630	1.684	1.718	1.826	1.984	2.132	2.246	2.341	2.440
50–59 years	104	2.019	0.302	1.538	1.634	1.705	1.783	2.030	2.202	2.376	2.423	2.541
60–69 years	108	*2.089	0.328	*1.606	*1.675	*1.745	*1.832	*2.066	*2.280	*2.398	*2.502	*2.701
70–79 years	36	*2.042	0.328	†	*1.644	*1.689	*1.741	*2.102	*2.228	*2.295	†	†
80 years and over	13	*1.980	0.288	†	†	†	*1.742	*1.962	*2.132	*2.219	†	†
20 years and over, age adjusted	764	2.048	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	207	1.271	0.164	1.004	1.058	1.090	1.153	1.258	1.387	1.439	1.478	1.546
12–15 years	221	1.652	0.298	1.223	1.257	1.316	1.415	1.621	1.864	1.984	2.038	2.172
16–19 years	226	2.078	0.260	1.608	1.741	1.801	1.904	2.078	2.255	2.351	2.420	2.496
20–29 years	286	2.159	0.232	1.793	1.874	1.910	1.994	2.151	2.303	2.404	2.469	2.567
30–39 years	340	2.128	0.252	1.729	1.788	1.860	1.946	2.126	2.290	2.382	2.433	2.554
40–49 years	321	2.128	0.269	1.711	1.794	1.839	1.925	2.112	2.317	2.403	2.481	2.579
50–59 years	325	2.131	0.303	1.636	1.736	1.792	1.924	2.130	2.339	2.447	2.512	2.639
60–69 years	267	2.185	0.296	1.673	1.785	1.850	1.976	2.173	2.378	2.501	2.547	2.669
70–79 years	254	2.154	0.357	1.619	1.744	1.791	1.902	2.115	2.380	2.519	2.619	2.780
80 years and over	156	2.172	0.430	1.581	1.683	1.770	1.887	2.120	2.369	2.553	2.767	2.965
20 years and over, age adjusted	1,949	2.144	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	198	1.337	0.180	1.052	1.133	1.168	1.220	1.319	1.448	1.515	1.562	1.613
12–15 years	231	1.688	0.302	1.204	1.330	1.366	1.474	1.671	1.905	1.995	2.062	2.181
16–19 years	257	2.174	0.268	1.790	1.849	1.906	1.970	2.150	2.341	2.497	2.537	2.677
20–29 years	162	2.294	0.291	1.839	1.936	2.027	2.122	2.289	2.421	2.595	2.693	2.783
30–39 years	145	2.271	0.273	1.858	1.932	1.973	2.069	2.291	2.417	2.560	2.613	†
40–49 years	151	2.241	0.287	1.803	1.910	1.976	2.041	2.222	2.411	2.543	2.592	2.773
50–59 years	120	2.282	0.329	1.768	1.845	1.930	2.038	2.235	2.522	2.627	2.731	2.866
60–69 years	167	2.279	0.367	1.692	1.794	1.888	2.051	2.236	2.537	2.692	2.746	2.880
70–79 years	68	*2.378	0.353	*1.782	*1.912	*1.962	*2.112	*2.353	*2.618	*2.798	*2.873	*2.935
80 years and over	19	*2.338	0.427	†	†	*1.815	*1.929	*2.206	*2.643	†	†	†
20 years and over, age adjusted	832	2.283	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	744	1.347	0.240	1.030	1.072	1.115	1.175	1.304	1.484	1.603	1.681	1.788
12–15 years	715	1.897	0.286	1.423	1.524	1.607	1.723	1.908	2.084	2.168	2.220	2.393
16–19 years	662	2.067	0.245	1.670	1.745	1.817	1.892	2.066	2.208	2.321	2.373	2.503
20–29 years	628	2.175	0.241	1.802	1.866	1.918	1.991	2.170	2.350	2.420	2.484	2.578
30–39 years	659	2.188	0.249	1.774	1.870	1.932	2.038	2.177	2.346	2.442	2.484	2.562
40–49 years	778	2.165	0.281	1.736	1.827	1.896	1.977	2.141	2.345	2.440	2.519	2.617
50–59 years	629	2.022	0.303	1.584	1.648	1.694	1.787	2.005	2.238	2.349	2.425	2.528
60–69 years	646	1.949	0.314	1.478	1.583	1.652	1.719	1.912	2.142	2.268	2.382	2.525
70–79 years	380	1.842	0.340	1.323	1.429	1.497	1.611	1.828	2.053	2.175	2.245	2.420
80 years and over	188	1.864	0.316	1.349	1.476	1.541	1.634	1.828	2.079	2.232	2.307	2.360
20 years and over, age adjusted	3,908	2.086	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 9. Lumbar spine vertebrae 2 and 3 (L2, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Females—Con.												
Mexican American:												
8–11 years	237	1.334	0.242	1.026	1.054	1.077	1.133	1.318	1.489	1.567	1.642	1.775
12–15 years	231	1.851	0.244	1.459	1.542	1.584	1.688	1.845	1.993	2.067	2.129	2.233
16–19 years	184	2.005	0.239	1.629	1.708	1.734	1.838	1.996	2.153	2.234	2.279	2.319
20–29 years	149	2.089	0.227	1.724	1.801	1.855	1.943	2.072	2.248	2.353	2.403	2.458
30–39 years	149	2.160	0.269	1.730	1.838	1.884	1.986	2.161	2.313	2.394	2.445	†
40–49 years	141	2.108	0.220	1.755	1.804	1.869	1.956	2.124	2.241	2.308	2.349	2.460
50–59 years	107	1.942	0.340	1.404	1.549	1.600	1.671	1.925	2.142	2.246	2.360	2.501
60–69 years	143	*1.796	0.280	*1.376	*1.428	*1.470	*1.589	*1.806	*1.960	*2.069	*2.185	*2.251
70–79 years	49	*1.667	0.323	†	*1.293	*1.307	*1.442	*1.640	*1.852	*2.002	*2.099	†
80 years and over	8	*1.611	0.452	†	†	†	†	*1.597	†	†	†	†
20 years and over, age adjusted	746	1.998	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	1.329	0.219	1.039	1.092	1.130	1.171	1.274	1.438	1.565	1.617	1.743
12–15 years	181	1.884	0.285	1.419	1.500	1.563	1.686	1.891	2.074	2.156	2.184	2.329
16–19 years	189	2.048	0.230	1.667	1.732	1.813	1.881	2.062	2.197	2.257	2.340	2.426
20–29 years	259	2.174	0.227	1.813	1.884	1.932	1.998	2.170	2.340	2.403	2.463	2.570
30–39 years	270	2.181	0.233	1.796	1.875	1.930	2.040	2.177	2.334	2.418	2.475	2.550
40–49 years	363	2.162	0.277	1.742	1.841	1.896	1.975	2.141	2.346	2.433	2.516	2.587
50–59 years	295	2.031	0.298	1.594	1.654	1.704	1.800	2.011	2.243	2.358	2.423	2.526
60–69 years	271	1.950	0.311	1.491	1.592	1.656	1.715	1.905	2.143	2.262	2.384	2.521
70–79 years	229	1.837	0.337	1.332	1.432	1.489	1.613	1.827	2.047	2.171	2.237	2.420
80 years and over	140	1.873	0.298	1.386	1.492	1.549	1.643	1.863	2.076	2.231	2.303	2.356
20 years and over, age adjusted	1,827	2.086	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	1.454	0.276	1.060	1.148	1.196	1.261	1.401	1.631	1.711	1.768	1.956
12–15 years	227	2.018	0.282	1.467	1.647	1.712	1.827	2.055	2.192	2.339	2.396	2.425
16–19 years	207	2.209	0.246	1.819	1.897	1.967	2.037	2.185	2.359	2.469	2.530	†
20–29 years	132	2.299	0.261	1.775	1.945	2.022	2.122	2.344	2.468	2.539	2.613	2.679
30–39 years	147	2.313	0.251	1.925	2.048	2.093	2.150	2.295	2.454	2.541	2.580	2.677
40–49 years	171	2.276	0.320	1.762	1.880	1.936	2.036	2.254	2.473	2.571	2.653	2.802
50–59 years	147	2.108	0.280	1.685	1.753	1.799	1.886	2.102	2.309	2.398	2.473	2.581
60–69 years	155	2.097	0.334	1.605	1.707	1.748	1.882	2.058	2.304	2.442	2.518	2.715
70–79 years	69	*2.035	0.314	*1.537	*1.657	*1.735	*1.842	*2.016	*2.208	*2.312	*2.367	*2.583
80 years and over	28	*1.870	0.457	†	†	*1.477	*1.555	*1.691	*2.171	†	†	†
20 years and over, age adjusted	849	2.205	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 10. Lumbar spine vertebrae 2 and 4 (L2, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	1.260	0.173	0.989	1.046	1.079	1.136	1.243	1.373	1.449	1.489	1.548
12–15 years	787	1.650	0.298	1.193	1.256	1.316	1.424	1.630	1.848	1.984	2.068	2.159
16–19 years	775	2.078	0.258	1.657	1.751	1.810	1.903	2.070	2.253	2.349	2.409	2.524
20–29 years	714	2.158	0.236	1.802	1.867	1.929	1.999	2.142	2.307	2.394	2.463	2.558
30–39 years	733	2.126	0.253	1.720	1.794	1.852	1.953	2.107	2.292	2.374	2.452	2.553
40–49 years	694	2.132	0.273	1.702	1.773	1.842	1.933	2.135	2.320	2.421	2.487	2.578
50–59 years	621	2.137	0.302	1.654	1.728	1.819	1.946	2.128	2.344	2.443	2.531	2.651
60–69 years	566	2.183	0.305	1.665	1.808	1.861	1.996	2.183	2.396	2.488	2.576	2.684
70–79 years	374	2.184	0.358	1.659	1.718	1.791	1.937	2.160	2.396	2.566	2.658	2.840
80 years and over	179	2.211	0.428	1.640	1.749	1.810	1.917	2.151	2.394	2.587	2.807	2.991
20 years and over, age adjusted	3,881	2.149	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	1.229	0.162	0.981	1.012	1.045	1.119	1.229	1.330	1.380	1.443	1.522
12–15 years	234	1.678	0.301	1.184	1.283	1.369	1.475	1.665	1.859	2.013	2.068	2.150
16–19 years	216	2.005	0.241	1.615	1.672	1.763	1.838	2.001	2.178	2.241	2.299	2.384
20–29 years	195	2.098	0.200	1.791	1.836	1.879	1.956	2.078	2.231	2.314	2.363	2.439
30–39 years	153	2.086	0.251	1.623	1.758	1.830	1.941	2.073	2.239	2.312	2.368	2.549
40–49 years	146	2.004	0.239	1.625	1.698	1.736	1.850	1.980	2.134	2.264	2.336	2.428
50–59 years	103	2.035	0.298	1.530	1.630	1.681	1.815	2.049	2.217	2.367	2.406	2.569
60–69 years	99	*2.101	0.325	*1.631	*1.738	*1.794	*1.845	*2.071	*2.289	*2.396	*2.512	*2.698
70–79 years	40	*2.074	0.323	†	*1.641	*1.667	*1.813	*2.061	*2.326	*2.385	*2.435	†
80 years and over	12	*2.022	0.275	†	†	†	*1.839	*1.983	*2.123	*2.223	†	†
20 years and over, age adjusted	748	2.060	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	207	1.257	0.170	0.989	1.040	1.076	1.134	1.237	1.375	1.443	1.489	1.538
12–15 years	220	1.644	0.293	1.206	1.251	1.313	1.418	1.616	1.839	1.963	2.014	2.159
16–19 years	226	2.067	0.250	1.614	1.736	1.797	1.906	2.070	2.241	2.330	2.380	2.497
20–29 years	286	2.151	0.226	1.795	1.869	1.932	1.999	2.138	2.296	2.384	2.456	2.533
30–39 years	335	2.120	0.246	1.725	1.792	1.841	1.946	2.109	2.276	2.366	2.436	2.502
40–49 years	314	2.130	0.264	1.708	1.772	1.844	1.931	2.136	2.317	2.399	2.481	2.565
50–59 years	320	2.139	0.294	1.659	1.727	1.812	1.957	2.136	2.349	2.443	2.523	2.625
60–69 years	251	2.188	0.293	1.672	1.811	1.869	2.011	2.192	2.397	2.480	2.566	2.639
70–79 years	244	2.169	0.359	1.656	1.706	1.779	1.915	2.135	2.371	2.538	2.652	2.835
80 years and over	140	2.219	0.436	1.637	1.756	1.808	1.917	2.170	2.403	2.593	2.807	†
20 years and over, age adjusted	1,890	2.146	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	1.339	0.182	1.064	1.137	1.160	1.219	1.318	1.450	1.513	1.555	1.660
12–15 years	231	1.684	0.296	1.203	1.301	1.368	1.496	1.685	1.891	2.011	2.072	2.161
16–19 years	256	2.168	0.266	1.764	1.867	1.890	1.973	2.154	2.326	2.471	2.527	2.619
20–29 years	157	2.289	0.279	1.844	1.952	2.011	2.120	2.263	2.431	2.508	2.651	2.770
30–39 years	145	2.270	0.275	1.845	1.933	1.984	2.090	2.278	2.411	2.530	2.603	2.719
40–49 years	148	2.248	0.293	1.772	1.915	1.989	2.064	2.211	2.419	2.550	2.601	2.853
50–59 years	116	2.294	0.322	1.836	1.879	1.927	2.044	2.273	2.503	2.644	2.739	2.865
60–69 years	149	2.298	0.360	1.732	1.838	1.888	2.076	2.285	2.514	2.729	2.784	2.859
70–79 years	63	*2.406	0.337	*1.741	*1.986	*2.014	*2.165	*2.402	*2.636	*2.780	*2.853	*2.931
80 years and over	15	*2.343	0.422	†	†	†	*1.963	*2.207	*2.527	†	†	†
20 years and over, age adjusted	793	2.290	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	1.345	0.239	1.035	1.078	1.107	1.164	1.295	1.491	1.603	1.668	1.777
12–15 years	709	1.887	0.281	1.419	1.513	1.599	1.708	1.900	2.058	2.159	2.217	2.369
16–19 years	635	2.058	0.233	1.695	1.758	1.826	1.898	2.048	2.197	2.284	2.357	2.487
20–29 years	603	2.162	0.232	1.795	1.887	1.922	1.995	2.154	2.332	2.393	2.447	2.548
30–39 years	654	2.175	0.240	1.779	1.877	1.934	2.010	2.184	2.321	2.423	2.474	2.556
40–49 years	753	2.158	0.274	1.749	1.843	1.902	1.972	2.145	2.336	2.427	2.492	2.587
50–59 years	613	2.023	0.292	1.585	1.656	1.702	1.810	2.002	2.216	2.332	2.413	2.507
60–69 years	620	1.962	0.298	1.485	1.617	1.678	1.753	1.932	2.158	2.289	2.369	2.507
70–79 years	343	1.855	0.331	1.350	1.441	1.527	1.616	1.833	2.061	2.173	2.268	2.383
80 years and over	164	1.916	0.310	1.423	1.522	1.598	1.670	1.882	2.135	2.266	2.321	2.410
20 years and over, age adjusted	3,750	2.085	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 10. Lumbar spine vertebrae 2 and 4 (L2, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	1.340	0.241	1.039	1.061	1.078	1.155	1.312	1.493	1.580	1.657	1.789
12–15 years	228	1.858	0.243	1.467	1.535	1.594	1.723	1.852	1.997	2.073	2.145	2.281
16–19 years	178	2.004	0.225	1.649	1.707	1.755	1.828	1.991	2.152	2.227	2.263	2.323
20–29 years	146	2.088	0.223	1.748	1.790	1.867	1.908	2.065	2.246	2.351	2.396	†
30–39 years	149	2.154	0.265	1.752	1.818	1.878	1.974	2.152	2.297	2.401	2.446	†
40–49 years	138	2.109	0.230	1.724	1.815	1.852	1.928	2.117	2.257	2.344	2.398	2.485
50–59 years	103	*1.957	0.338	*1.433	*1.551	*1.617	*1.717	*1.943	*2.131	*2.264	*2.355	*2.476
60–69 years	137	*1.814	0.280	*1.396	*1.456	*1.480	*1.612	*1.814	*1.988	*2.077	*2.158	*2.250
70–79 years	45	*1.703	0.295	†	*1.281	*1.400	*1.469	*1.699	*1.874	*2.025	*2.099	†
80 years and over	6	*1.627	0.430	†	†	†	†	*1.468	†	†	†	†
20 years and over, age adjusted	724	2.005	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	1.326	0.222	1.036	1.080	1.112	1.162	1.264	1.456	1.571	1.615	1.743
12–15 years	179	1.870	0.279	1.406	1.508	1.576	1.690	1.878	2.054	2.140	2.180	2.337
16–19 years	175	2.045	0.222	1.690	1.758	1.822	1.893	2.034	2.185	2.252	2.308	2.442
20–29 years	240	2.163	0.218	1.813	1.895	1.938	1.997	2.162	2.325	2.387	2.441	2.527
30–39 years	265	2.169	0.224	1.797	1.883	1.932	2.010	2.187	2.307	2.391	2.455	2.522
40–49 years	354	2.153	0.272	1.746	1.853	1.907	1.971	2.144	2.328	2.415	2.488	2.558
50–59 years	290	2.032	0.287	1.596	1.655	1.702	1.826	2.012	2.226	2.334	2.411	2.503
60–69 years	261	1.960	0.291	1.529	1.629	1.680	1.746	1.928	2.158	2.283	2.348	2.481
70–79 years	214	1.853	0.330	1.353	1.449	1.527	1.625	1.822	2.049	2.165	2.268	2.380
80 years and over	123	1.920	0.292	1.439	1.544	1.605	1.689	1.905	2.134	2.255	2.318	2.408
20 years and over, age adjusted	1,747	2.084	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	1.453	0.269	1.086	1.140	1.200	1.258	1.413	1.635	1.715	1.773	1.923
12–15 years	226	2.009	0.279	1.500	1.622	1.716	1.817	2.010	2.206	2.315	2.387	2.433
16–19 years	203	2.196	0.229	1.832	1.916	1.955	2.043	2.162	2.335	2.451	2.535	2.632
20–29 years	130	2.269	0.257	1.823	1.916	1.999	2.080	2.295	2.430	2.519	2.623	2.667
30–39 years	147	2.296	0.241	1.895	2.033	2.074	2.140	2.260	2.431	2.504	2.558	2.677
40–49 years	165	2.262	0.301	1.773	1.892	1.941	2.061	2.253	2.438	2.543	2.603	2.694
50–59 years	142	2.115	0.268	1.700	1.780	1.858	1.946	2.093	2.281	2.377	2.452	2.592
60–69 years	149	2.114	0.329	1.560	1.716	1.791	1.893	2.090	2.326	2.449	2.539	†
70–79 years	54	*2.053	0.286	*1.541	*1.638	*1.796	*1.903	*2.043	*2.232	*2.293	*2.374	*2.443
80 years and over	24	*1.946	0.438	†	†	*1.569	*1.638	*1.743	*2.169	†	†	†
20 years and over, age adjusted	811	2.201	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 11. Lumbar spine vertebrae 3 and 4 (L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	1.287	0.171	1.009	1.069	1.103	1.170	1.278	1.404	1.467	1.506	1.579
12–15 years	788	1.661	0.292	1.217	1.288	1.330	1.437	1.641	1.870	1.980	2.065	2.159
16–19 years	776	2.086	0.258	1.673	1.755	1.818	1.921	2.077	2.244	2.358	2.418	2.530
20–29 years	715	2.165	0.240	1.792	1.880	1.922	2.004	2.143	2.323	2.399	2.470	2.593
30–39 years	730	2.117	0.257	1.699	1.784	1.855	1.938	2.112	2.283	2.370	2.425	2.550
40–49 years	699	2.124	0.276	1.693	1.772	1.838	1.918	2.118	2.293	2.393	2.494	2.601
50–59 years	620	2.144	0.316	1.645	1.740	1.792	1.925	2.140	2.361	2.486	2.552	2.661
60–69 years	573	2.206	0.320	1.675	1.796	1.883	1.999	2.197	2.412	2.546	2.620	2.714
70–79 years	377	2.228	0.367	1.691	1.742	1.836	2.006	2.187	2.449	2.631	2.725	2.900
80 years and over	183	2.237	0.425	1.679	1.741	1.821	1.931	2.185	2.419	2.626	2.873	3.060
20 years and over, age adjusted	3,897	2.155	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	1.257	0.162	0.998	1.045	1.074	1.156	1.245	1.354	1.410	1.458	1.547
12–15 years	234	1.691	0.292	1.214	1.309	1.386	1.491	1.673	1.909	2.005	2.062	2.173
16–19 years	217	2.007	0.232	1.621	1.677	1.760	1.847	2.000	2.165	2.231	2.291	2.389
20–29 years	197	2.100	0.205	1.802	1.839	1.894	1.950	2.065	2.223	2.331	2.356	2.509
30–39 years	153	2.078	0.256	1.630	1.728	1.795	1.934	2.069	2.229	2.330	2.397	2.505
40–49 years	150	1.996	0.246	1.630	1.674	1.714	1.838	1.967	2.123	2.239	2.326	†
50–59 years	103	2.043	0.312	1.554	1.621	1.674	1.801	2.044	2.207	2.413	2.490	2.574
60–69 years	102	*2.129	0.337	*1.603	*1.716	*1.831	*1.909	*2.083	*2.308	*2.400	*2.542	*2.816
70–79 years	38	*2.103	0.333	†	*1.693	*1.716	*1.797	*2.109	*2.319	*2.458	*2.533	†
80 years and over	12	*2.002	0.307	†	†	†	*1.811	*1.951	*2.218	*2.252	†	†
20 years and over, age adjusted	755	2.062	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	208	1.285	0.167	1.007	1.068	1.091	1.166	1.273	1.409	1.462	1.501	1.554
12–15 years	220	1.654	0.285	1.243	1.291	1.325	1.427	1.629	1.866	1.962	2.026	2.153
16–19 years	226	2.074	0.249	1.659	1.736	1.804	1.924	2.069	2.235	2.325	2.393	2.474
20–29 years	285	2.159	0.229	1.779	1.884	1.922	2.002	2.148	2.310	2.384	2.437	2.566
30–39 years	333	2.109	0.247	1.702	1.780	1.840	1.928	2.116	2.273	2.355	2.403	2.530
40–49 years	316	2.122	0.267	1.702	1.785	1.838	1.918	2.121	2.285	2.381	2.481	2.596
50–59 years	318	2.147	0.307	1.658	1.753	1.796	1.938	2.152	2.360	2.479	2.541	2.654
60–69 years	252	2.209	0.308	1.683	1.812	1.893	2.004	2.208	2.412	2.543	2.606	2.700
70–79 years	248	2.213	0.366	1.690	1.738	1.819	2.004	2.169	2.408	2.615	2.721	2.861
80 years and over	145	2.245	0.425	1.679	1.738	1.823	1.932	2.189	2.423	2.610	2.873	†
20 years and over, age adjusted	1,897	2.152	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	1.363	0.178	1.085	1.170	1.204	1.241	1.337	1.473	1.534	1.584	1.687
12–15 years	232	1.704	0.296	1.194	1.326	1.387	1.496	1.696	1.888	1.991	2.093	2.177
16–19 years	256	2.187	0.268	1.780	1.879	1.918	1.988	2.164	2.349	2.503	2.568	2.657
20–29 years	158	2.299	0.283	1.872	1.991	2.027	2.129	2.274	2.451	2.556	2.657	2.787
30–39 years	144	2.276	0.274	1.848	1.939	1.986	2.077	2.281	2.440	2.571	2.618	†
40–49 years	147	2.253	0.295	1.814	1.917	1.989	2.071	2.216	2.408	2.576	2.624	2.839
50–59 years	115	2.312	0.333	1.835	1.885	1.920	2.063	2.282	2.519	2.646	2.759	2.851
60–69 years	150	2.329	0.361	1.777	1.840	1.937	2.087	2.323	2.563	2.735	2.810	2.914
70–79 years	65	*2.456	0.353	†	*1.965	*2.037	*2.141	*2.457	*2.701	*2.854	*2.903	*3.006
80 years and over	14	*2.414	0.483	†	†	†	*2.014	*2.241	†	†	†	†
20 years and over, age adjusted	793	2.308	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	742	1.377	0.240	1.052	1.104	1.139	1.197	1.334	1.519	1.629	1.693	1.833
12–15 years	708	1.916	0.285	1.450	1.543	1.628	1.738	1.935	2.091	2.183	2.265	2.387
16–19 years	633	2.088	0.233	1.710	1.784	1.836	1.936	2.070	2.230	2.326	2.378	2.523
20–29 years	597	2.198	0.233	1.839	1.919	1.952	2.031	2.187	2.356	2.435	2.489	2.586
30–39 years	658	2.212	0.240	1.819	1.908	1.967	2.058	2.211	2.353	2.458	2.510	2.584
40–49 years	763	2.193	0.274	1.769	1.883	1.926	2.005	2.185	2.355	2.472	2.538	2.659
50–59 years	619	2.066	0.293	1.614	1.696	1.752	1.855	2.047	2.256	2.382	2.460	2.559
60–69 years	620	2.007	0.314	1.553	1.657	1.704	1.789	1.953	2.194	2.350	2.439	2.582
70–79 years	349	1.926	0.338	1.400	1.507	1.562	1.703	1.907	2.137	2.260	2.366	2.453
80 years and over	174	1.974	0.331	1.479	1.545	1.637	1.729	1.963	2.212	2.345	2.390	2.493
20 years and over, age adjusted	3,780	2.127	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 11. Lumbar spine vertebrae 3 and 4 (L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	1.375	0.239	1.059	1.099	1.135	1.183	1.346	1.525	1.606	1.668	1.826
12–15 years	228	1.890	0.248	1.463	1.563	1.624	1.745	1.891	2.034	2.095	2.158	2.295
16–19 years	178	2.038	0.227	1.685	1.744	1.785	1.869	2.025	2.183	2.258	2.302	2.371
20–29 years	145	2.110	0.219	1.733	1.830	1.873	1.971	2.103	2.275	2.355	2.412	†
30–39 years	149	2.187	0.276	1.767	1.866	1.900	2.003	2.185	2.327	2.433	2.510	†
40–49 years	137	2.134	0.227	1.786	1.840	1.873	1.969	2.120	2.284	2.343	2.438	2.497
50–59 years	108	*1.988	0.343	*1.442	*1.586	*1.634	*1.758	*1.947	*2.175	*2.327	*2.399	*2.493
60–69 years	141	1.873	0.298	1.406	1.494	1.530	1.649	1.870	2.076	2.161	2.238	2.339
70–79 years	48	*1.756	0.298	†	*1.383	*1.448	*1.529	*1.744	*1.937	*2.047	*2.140	†
80 years and over	8	*1.603	0.377	†	†	†	†	*1.496	†	†	†	†
20 years and over, age adjusted	736	2.035	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	1.358	0.223	1.053	1.105	1.138	1.187	1.312	1.474	1.604	1.654	1.793
12–15 years	178	1.896	0.282	1.448	1.517	1.617	1.699	1.907	2.085	2.166	2.221	2.335
16–19 years	173	2.077	0.221	1.704	1.780	1.836	1.936	2.063	2.218	2.291	2.344	2.438
20–29 years	239	2.197	0.217	1.867	1.933	1.960	2.042	2.190	2.334	2.425	2.477	2.564
30–39 years	268	2.203	0.221	1.825	1.912	1.967	2.058	2.211	2.342	2.417	2.473	2.534
40–49 years	361	2.188	0.270	1.766	1.894	1.928	2.005	2.187	2.345	2.452	2.519	2.622
50–59 years	291	2.077	0.287	1.621	1.700	1.753	1.868	2.054	2.269	2.382	2.457	2.548
60–69 years	262	2.003	0.309	1.578	1.664	1.707	1.791	1.947	2.191	2.334	2.434	2.582
70–79 years	216	1.928	0.341	1.397	1.515	1.562	1.707	1.903	2.141	2.252	2.367	2.458
80 years and over	130	1.981	0.318	1.454	1.550	1.648	1.738	1.980	2.211	2.343	2.392	2.488
20 years and over, age adjusted	1,767	2.126	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	1.483	0.270	1.101	1.176	1.236	1.282	1.442	1.661	1.734	1.854	1.950
12–15 years	226	2.040	0.280	1.533	1.658	1.747	1.876	2.040	2.241	2.371	2.416	2.473
16–19 years	203	2.223	0.233	1.851	1.935	1.967	2.072	2.183	2.369	2.490	2.551	2.647
20–29 years	128	2.317	0.266	1.849	1.944	2.021	2.112	2.349	2.485	2.599	2.680	†
30–39 years	147	2.346	0.246	1.916	2.076	2.127	2.196	2.318	2.501	2.577	2.613	2.714
40–49 years	168	2.293	0.305	1.803	1.908	1.984	2.075	2.274	2.492	2.558	2.639	2.781
50–59 years	140	2.153	0.272	1.727	1.796	1.841	1.965	2.150	2.349	2.426	2.514	2.601
60–69 years	145	2.167	0.351	1.595	1.734	1.817	1.920	2.126	2.392	2.506	2.607	†
70–79 years	55	*2.093	0.277	*1.621	*1.754	*1.840	*1.949	*2.090	*2.272	*2.326	*2.408	*2.435
80 years and over	23	*2.024	0.459	†	†	*1.632	*1.693	*1.840	*2.317	†	†	†
20 years and over, age adjusted	806	2.245	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

† Standard error not calculated by SUDAAN.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 12. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	1.841	0.260	1.445	1.529	1.569	1.648	1.815	2.029	2.113	2.177	2.294
12–15 years	784	2.428	0.453	1.714	1.832	1.897	2.081	2.398	2.757	2.934	3.019	3.213
16–19 years	774	3.057	0.390	2.404	2.561	2.649	2.794	3.055	3.305	3.464	3.568	3.730
20–29 years	713	3.157	0.354	2.608	2.723	2.788	2.916	3.130	3.386	3.512	3.639	3.754
30–39 years	727	3.119	0.373	2.532	2.625	2.740	2.866	3.114	3.355	3.483	3.566	3.786
40–49 years	684	3.135	0.401	2.526	2.621	2.723	2.834	3.120	3.420	3.558	3.655	3.831
50–59 years	601	3.120	0.444	2.396	2.538	2.641	2.820	3.106	3.414	3.578	3.685	3.887
60–69 years	581	3.167	0.442	2.401	2.611	2.696	2.870	3.149	3.449	3.628	3.730	3.885
70–79 years	356	3.172	0.515	2.409	2.549	2.641	2.818	3.130	3.492	3.706	3.862	4.105
80 years and over	186	3.165	0.599	2.335	2.484	2.581	2.773	3.075	3.429	3.691	3.975	4.329
20 years and over, age adjusted	3,848	3.141	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	1.787	0.245	1.379	1.481	1.529	1.632	1.764	1.944	2.036	2.100	2.234
12–15 years	231	2.460	0.448	1.699	1.821	1.988	2.151	2.446	2.745	2.927	3.019	3.213
16–19 years	216	2.947	0.356	2.385	2.496	2.558	2.700	2.942	3.176	3.299	3.408	3.492
20–29 years	193	3.073	0.309	2.611	2.672	2.745	2.875	3.039	3.280	3.398	3.485	3.626
30–39 years	152	3.046	0.382	2.401	2.533	2.625	2.808	3.023	3.288	3.393	3.516	3.743
40–49 years	145	2.956	0.355	2.383	2.482	2.560	2.714	2.942	3.194	3.316	3.465	3.562
50–59 years	100	2.960	0.438	2.281	2.390	2.507	2.633	2.972	3.236	3.354	3.540	3.740
60–69 years	103	*3.050	0.480	*2.360	*2.451	*2.471	*2.665	*3.026	*3.315	*3.459	*3.680	*3.905
70–79 years	31	*2.966	0.480	†	†	*2.453	*2.554	*2.983	*3.302	*3.336	*3.628	†
80 years and over	13	*2.917	0.421	†	†	†	*2.589	*2.939	*3.129	*3.225	†	†
20 years and over, age adjusted	737	3.006	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	1.843	0.253	1.445	1.531	1.566	1.651	1.816	2.040	2.110	2.156	2.294
12–15 years	221	2.423	0.451	1.727	1.839	1.889	2.061	2.397	2.754	2.909	2.992	3.250
16–19 years	225	3.043	0.384	2.384	2.558	2.629	2.787	3.056	3.287	3.460	3.526	3.689
20–29 years	282	3.145	0.337	2.604	2.725	2.788	2.914	3.130	3.351	3.493	3.632	3.743
30–39 years	337	3.115	0.360	2.537	2.640	2.746	2.865	3.117	3.339	3.470	3.525	3.727
40–49 years	310	3.135	0.395	2.546	2.620	2.725	2.834	3.122	3.418	3.540	3.655	3.833
50–59 years	313	3.127	0.430	2.389	2.559	2.658	2.834	3.137	3.413	3.577	3.662	3.859
60–69 years	249	3.180	0.426	2.403	2.639	2.720	2.886	3.167	3.462	3.617	3.696	3.874
70–79 years	228	3.159	0.517	2.363	2.541	2.635	2.813	3.115	3.482	3.673	3.841	4.088
80 years and over	143	3.175	0.608	2.346	2.494	2.592	2.781	3.077	3.428	3.649	3.973	4.393
20 years and over, age adjusted	1,862	3.140	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	1.941	0.280	1.487	1.616	1.667	1.741	1.921	2.110	2.233	2.285	2.395
12–15 years	231	2.468	0.451	1.709	1.885	1.990	2.169	2.464	2.799	2.896	3.013	3.205
16–19 years	256	3.174	0.384	2.614	2.692	2.805	2.888	3.143	3.421	3.598	3.685	3.890
20–29 years	162	3.346	0.429	2.665	2.818	2.912	3.078	3.315	3.566	3.804	3.904	4.074
30–39 years	141	3.311	0.401	2.676	2.845	2.883	3.014	3.346	3.536	3.700	3.830	†
40–49 years	144	3.289	0.425	2.663	2.812	2.930	2.994	3.230	3.548	3.708	3.829	4.094
50–59 years	114	3.340	0.493	2.627	2.719	2.825	2.965	3.264	3.704	3.866	4.049	4.166
60–69 years	159	3.294	0.528	2.399	2.651	2.751	2.959	3.250	3.649	3.820	3.970	4.137
70–79 years	68	*3.432	0.499	*2.601	*2.747	*2.853	*3.044	*3.377	*3.756	*4.085	*4.151	*4.254
80 years and over	18	*3.316	0.581	†	†	†	*2.776	*3.120	*3.752	†	†	†
20 years and over, age adjusted	806	3.325	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	1.938	0.361	1.461	1.544	1.588	1.669	1.879	2.142	2.307	2.437	2.626
12–15 years	714	2.747	0.420	2.028	2.199	2.332	2.473	2.751	3.027	3.140	3.269	3.472
16–19 years	661	2.982	0.356	2.411	2.549	2.612	2.712	2.960	3.200	3.330	3.417	3.610
20–29 years	623	3.135	0.357	2.570	2.677	2.767	2.875	3.129	3.394	3.504	3.591	3.717
30–39 years	647	3.151	0.368	2.562	2.690	2.779	2.914	3.148	3.392	3.525	3.593	3.765
40–49 years	771	3.123	0.415	2.494	2.633	2.725	2.836	3.100	3.385	3.539	3.646	3.783
50–59 years	610	2.902	0.445	2.278	2.367	2.435	2.566	2.875	3.206	3.400	3.488	3.658
60–69 years	618	2.781	0.437	2.108	2.265	2.348	2.461	2.750	3.055	3.252	3.404	3.576
70–79 years	362	2.629	0.502	1.843	2.040	2.124	2.287	2.616	2.922	3.097	3.225	3.464
80 years and over	179	2.663	0.456	1.903	2.111	2.193	2.331	2.661	3.019	3.195	3.253	3.378
20 years and over, age adjusted	3,810	2.999	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 12. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	1.920	0.365	1.450	1.495	1.546	1.615	1.892	2.165	2.282	2.399	2.566
12–15 years	231	2.685	0.353	2.109	2.239	2.320	2.450	2.678	2.898	3.002	3.118	3.285
16–19 years	184	2.890	0.351	2.348	2.424	2.496	2.645	2.907	3.110	3.234	3.302	3.374
20–29 years	148	3.022	0.340	2.456	2.566	2.664	2.806	2.969	3.250	3.412	3.486	3.598
30–39 years	149	3.114	0.400	2.471	2.629	2.727	2.858	3.092	3.350	3.474	3.540	†
40–49 years	140	3.056	0.327	2.498	2.629	2.730	2.811	3.082	3.266	3.360	3.456	3.535
50–59 years	103	*2.808	0.513	*2.048	*2.183	*2.285	*2.420	*2.821	*3.100	*3.202	*3.352	*3.767
60–69 years	132	*2.605	0.406	*2.030	*2.073	*2.152	*2.278	*2.619	*2.839	*2.989	*3.124	*3.254
70–79 years	44	*2.363	0.446	†	*1.781	*1.900	*2.059	*2.335	*2.631	*2.932	*2.970	†
80 years and over	8	*2.332	0.673	†	†	†	†	*2.301	†	†	†	†
20 years and over, age adjusted	724	2.886	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	1.913	0.333	1.465	1.569	1.594	1.674	1.827	2.087	2.259	2.374	2.545
12–15 years	181	2.731	0.420	2.017	2.198	2.276	2.429	2.726	3.027	3.118	3.206	3.428
16–19 years	188	2.955	0.333	2.409	2.544	2.607	2.702	2.943	3.176	3.277	3.378	3.494
20–29 years	256	3.135	0.334	2.626	2.691	2.769	2.881	3.122	3.373	3.470	3.578	3.707
30–39 years	263	3.141	0.346	2.597	2.693	2.776	2.917	3.149	3.350	3.493	3.554	3.688
40–49 years	358	3.118	0.412	2.494	2.639	2.726	2.830	3.096	3.384	3.513	3.603	3.768
50–59 years	289	2.913	0.437	2.290	2.379	2.436	2.567	2.878	3.234	3.401	3.482	3.650
60–69 years	262	2.778	0.430	2.163	2.266	2.351	2.449	2.750	3.054	3.248	3.403	3.559
70–79 years	222	2.620	0.500	1.852	2.039	2.118	2.273	2.611	2.908	3.081	3.211	3.461
80 years and over	135	2.670	0.430	1.935	2.131	2.203	2.347	2.677	2.990	3.175	3.253	3.347
20 years and over, age adjusted	1,785	2.997	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	2.094	0.409	1.517	1.638	1.687	1.792	2.027	2.364	2.467	2.597	2.801
12–15 years	226	2.912	0.411	2.128	2.374	2.474	2.627	2.963	3.193	3.336	3.447	3.531
16–19 years	207	3.179	0.362	2.590	2.747	2.808	2.937	3.156	3.412	3.563	3.646	†
20–29 years	132	3.311	0.393	2.518	2.792	2.876	3.021	3.402	3.543	3.682	3.785	†
30–39 years	143	3.328	0.368	2.712	2.943	2.988	3.069	3.286	3.540	3.658	3.764	3.886
40–49 years	170	3.281	0.473	2.536	2.681	2.780	2.970	3.244	3.567	3.730	3.843	4.039
50–59 years	139	3.044	0.413	2.453	2.521	2.598	2.703	3.039	3.361	3.501	3.588	3.680
60–69 years	151	3.004	0.479	2.236	2.447	2.520	2.723	2.956	3.310	3.445	3.630	3.889
70–79 years	68	*2.912	0.473	*2.176	*2.374	*2.411	*2.624	*2.902	*3.190	*3.319	*3.451	*3.744
80 years and over	26	*2.707	0.629	†	†	*2.177	*2.288	*2.398	*3.140	†	†	†
20 years and over, age adjusted	829	3.174	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 13. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	1.832	0.263	1.428	1.514	1.561	1.650	1.792	2.014	2.123	2.177	2.292
12–15 years	784	2.422	0.449	1.707	1.823	1.891	2.074	2.394	2.740	2.923	3.014	3.197
16–19 years	773	3.048	0.381	2.399	2.560	2.650	2.799	3.041	3.292	3.454	3.541	3.720
20–29 years	707	3.151	0.346	2.638	2.724	2.803	2.912	3.129	3.366	3.500	3.614	3.735
30–39 years	719	3.117	0.367	2.550	2.640	2.720	2.868	3.112	3.353	3.482	3.576	3.769
40–49 years	670	3.139	0.398	2.502	2.625	2.706	2.847	3.140	3.424	3.566	3.660	3.794
50–59 years	591	3.130	0.433	2.431	2.561	2.683	2.856	3.128	3.421	3.547	3.692	3.880
60–69 years	537	3.163	0.432	2.425	2.569	2.711	2.903	3.168	3.439	3.576	3.729	3.883
70–79 years	344	3.181	0.516	2.390	2.530	2.632	2.830	3.163	3.482	3.700	3.873	4.081
80 years and over	165	3.226	0.603	2.355	2.587	2.631	2.835	3.128	3.482	3.786	4.076	†
20 years and over, age adjusted	3,733	3.145	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	1.789	0.246	1.418	1.473	1.527	1.631	1.765	1.944	2.041	2.102	2.262
12–15 years	232	2.461	0.446	1.697	1.846	1.990	2.160	2.449	2.732	2.944	3.012	3.169
16–19 years	216	2.945	0.355	2.355	2.500	2.585	2.698	2.939	3.185	3.286	3.371	3.540
20–29 years	192	3.072	0.307	2.583	2.679	2.752	2.861	3.035	3.291	3.398	3.500	3.612
30–39 years	149	3.063	0.367	2.427	2.589	2.681	2.849	3.054	3.295	3.396	3.492	3.766
40–49 years	140	2.957	0.346	2.401	2.502	2.575	2.734	2.947	3.166	3.320	3.427	3.546
50–59 years	99	2.977	0.433	2.268	2.384	2.482	2.647	2.994	3.252	3.375	3.528	3.754
60–69 years	94	*3.057	0.478	*2.411	*2.473	*2.522	*2.665	*2.989	*3.332	*3.451	*3.617	†
70–79 years	34	*3.007	0.476	†	*2.407	*2.492	*2.621	*2.972	*3.369	*3.472	†	†
80 years and over	12	*2.972	0.400	†	†	†	*2.777	*2.942	*3.132	*3.262	†	†
20 years and over, age adjusted	720	3.019	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	1.829	0.259	1.428	1.512	1.556	1.643	1.786	2.023	2.119	2.169	2.287
12–15 years	220	2.415	0.446	1.717	1.821	1.886	2.065	2.387	2.727	2.917	2.972	3.199
16–19 years	225	3.032	0.373	2.353	2.540	2.639	2.799	3.036	3.266	3.421	3.498	3.683
20–29 years	282	3.138	0.330	2.643	2.725	2.803	2.909	3.129	3.348	3.463	3.587	3.702
30–39 years	332	3.109	0.354	2.562	2.633	2.711	2.862	3.110	3.322	3.469	3.561	3.721
40–49 years	304	3.137	0.389	2.505	2.614	2.701	2.849	3.143	3.408	3.538	3.614	3.765
50–59 years	309	3.134	0.421	2.433	2.567	2.684	2.876	3.146	3.425	3.537	3.651	3.831
60–69 years	235	3.172	0.414	2.433	2.580	2.750	2.903	3.176	3.439	3.559	3.703	3.865
70–79 years	220	3.163	0.521	2.367	2.514	2.616	2.810	3.138	3.456	3.689	3.868	4.018
80 years and over	129	3.244	0.613	2.379	2.599	2.634	2.835	3.137	3.486	3.821	4.090	†
20 years and over, age adjusted	1,811	3.142	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	1.944	0.281	1.527	1.638	1.663	1.742	1.925	2.124	2.231	2.274	2.399
12–15 years	231	2.464	0.445	1.705	1.862	1.999	2.192	2.468	2.777	2.928	3.003	3.202
16–19 years	255	3.169	0.381	2.593	2.695	2.765	2.890	3.135	3.404	3.570	3.667	3.812
20–29 years	157	3.336	0.413	2.678	2.812	2.951	3.094	3.283	3.568	3.724	3.886	4.000
30–39 years	141	3.313	0.402	2.699	2.839	2.884	3.024	3.338	3.532	3.667	3.844	3.962
40–49 years	141	3.293	0.429	2.630	2.821	2.912	3.026	3.209	3.556	3.699	3.830	4.123
50–59 years	110	3.345	0.481	2.687	2.783	2.827	2.956	3.273	3.654	3.879	4.051	4.190
60–69 years	141	3.300	0.510	2.425	2.650	2.777	2.987	3.292	3.591	3.855	3.954	4.088
70–79 years	63	*3.460	0.478	*2.548	*2.839	*2.929	*3.125	*3.453	*3.747	*4.019	*4.094	*4.220
80 years and over	14	*3.296	0.573	†	†	†	*2.827	*3.160	†	†	†	†
20 years and over, age adjusted	767	3.328	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	1.935	0.360	1.468	1.534	1.584	1.663	1.870	2.154	2.315	2.427	2.607
12–15 years	708	2.738	0.415	2.038	2.197	2.316	2.479	2.750	2.990	3.146	3.227	3.421
16–19 years	634	2.974	0.340	2.437	2.547	2.627	2.732	2.955	3.185	3.305	3.400	3.564
20–29 years	597	3.125	0.346	2.572	2.706	2.770	2.868	3.128	3.384	3.473	3.562	3.686
30–39 years	642	3.138	0.357	2.564	2.690	2.799	2.901	3.139	3.353	3.503	3.577	3.700
40–49 years	746	3.114	0.406	2.504	2.646	2.725	2.822	3.089	3.377	3.507	3.622	3.743
50–59 years	594	2.903	0.433	2.276	2.375	2.447	2.588	2.862	3.184	3.363	3.472	3.620
60–69 years	595	2.801	0.424	2.170	2.311	2.369	2.504	2.761	3.074	3.277	3.386	3.510
70–79 years	324	2.638	0.494	1.876	2.068	2.163	2.286	2.605	2.911	3.111	3.252	3.436
80 years and over	157	2.713	0.449	1.968	2.166	2.254	2.373	2.715	3.041	3.248	3.294	3.399
20 years and over, age adjusted	3,655	2.998	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 13. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	1.926	0.364	1.460	1.508	1.547	1.636	1.887	2.164	2.284	2.397	2.572
12–15 years	228	2.693	0.352	2.145	2.211	2.340	2.484	2.683	2.888	3.034	3.139	3.281
16–19 years	178	2.891	0.336	2.394	2.433	2.494	2.636	2.898	3.111	3.222	3.274	3.361
20–29 years	145	3.023	0.338	2.482	2.584	2.664	2.782	2.977	3.274	3.417	3.475	3.583
30–39 years	149	3.107	0.395	2.503	2.626	2.723	2.823	3.087	3.336	3.461	3.561	†
40–49 years	137	3.057	0.338	2.458	2.622	2.702	2.798	3.104	3.266	3.402	3.460	3.574
50–59 years	99	*2.831	0.511	*2.060	*2.144	*2.349	*2.448	*2.824	*3.125	*3.274	*3.360	*3.688
60–69 years	126	*2.626	0.406	*2.002	*2.110	*2.157	*2.292	*2.650	*2.873	*2.998	*3.148	†
70–79 years	41	*2.419	0.439	†	*1.854	*1.931	*2.060	*2.420	*2.636	*2.852	*3.066	†
80 years and over	6	*2.340	0.634	†	†	†	†	*2.141	†	†	†	†
20 years and over, age adjusted	703	2.896	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	1.910	0.337	1.459	1.539	1.587	1.653	1.818	2.104	2.279	2.361	2.529
12–15 years	179	2.717	0.415	2.020	2.191	2.258	2.449	2.739	2.990	3.107	3.203	3.395
16–19 years	174	2.956	0.321	2.437	2.541	2.626	2.711	2.932	3.169	3.277	3.332	3.476
20–29 years	237	3.129	0.322	2.601	2.737	2.782	2.882	3.135	3.371	3.462	3.513	3.645
30–39 years	258	3.129	0.335	2.592	2.695	2.800	2.908	3.140	3.329	3.462	3.563	3.682
40–49 years	349	3.108	0.405	2.504	2.658	2.724	2.820	3.083	3.360	3.498	3.585	3.736
50–59 years	284	2.913	0.424	2.286	2.388	2.447	2.601	2.868	3.203	3.358	3.445	3.620
60–69 years	254	2.795	0.415	2.175	2.328	2.369	2.497	2.758	3.067	3.275	3.378	3.476
70–79 years	205	2.631	0.493	1.850	2.068	2.161	2.281	2.597	2.894	3.079	3.238	3.429
80 years and over	119	2.716	0.423	1.982	2.187	2.264	2.398	2.726	3.036	3.215	3.291	3.369
20 years and over, age adjusted	1,706	2.996	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	2.093	0.401	1.531	1.641	1.717	1.785	2.036	2.376	2.484	2.588	2.798
12–15 years	225	2.903	0.407	2.151	2.355	2.480	2.616	2.936	3.194	3.339	3.473	3.535
16–19 years	203	3.168	0.343	2.654	2.747	2.817	2.923	3.117	3.395	3.552	3.631	†
20–29 years	129	3.276	0.390	2.549	2.742	2.878	2.987	3.328	3.540	3.653	3.788	3.883
30–39 years	143	3.311	0.356	2.772	2.911	2.985	3.068	3.297	3.511	3.666	3.710	3.841
40–49 years	164	3.259	0.450	2.538	2.697	2.789	2.953	3.224	3.528	3.669	3.780	3.997
50–59 years	134	3.054	0.396	2.448	2.565	2.666	2.777	3.027	3.326	3.481	3.535	3.704
60–69 years	145	3.019	0.474	2.241	2.459	2.552	2.707	3.005	3.331	3.471	3.600	†
70–79 years	53	*2.927	0.436	*2.190	*2.339	*2.471	*2.674	*2.899	*3.149	*3.346	*3.392	*3.594
80 years and over	23	*2.750	0.631	†	†	*2.222	*2.304	*2.417	*3.073	†	†	†
20 years and over, age adjusted	791	3.166	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

† Standard error not calculated by SUDAAN.

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 14. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	1.859	0.259	1.453	1.537	1.586	1.678	1.820	2.038	2.147	2.200	2.311
12–15 years	785	2.433	0.441	1.719	1.849	1.930	2.107	2.419	2.751	2.909	3.032	3.204
16–19 years	774	3.056	0.377	2.436	2.569	2.677	2.806	3.053	3.290	3.467	3.556	3.696
20–29 years	706	3.158	0.346	2.623	2.731	2.812	2.927	3.134	3.384	3.503	3.630	3.746
30–39 years	716	3.107	0.365	2.528	2.621	2.720	2.850	3.117	3.337	3.477	3.558	3.717
40–49 years	670	3.128	0.399	2.509	2.618	2.701	2.839	3.100	3.395	3.544	3.646	3.778
50–59 years	585	3.136	0.443	2.414	2.558	2.666	2.843	3.133	3.434	3.587	3.682	3.906
60–69 years	536	3.191	0.450	2.417	2.597	2.736	2.905	3.166	3.488	3.634	3.773	3.923
70–79 years	339	3.222	0.526	2.430	2.560	2.677	2.888	3.168	3.522	3.782	3.936	4.181
80 years and over	166	3.241	0.603	2.406	2.544	2.638	2.838	3.169	3.513	3.833	4.037	4.329
20 years and over, age adjusted	3,718	3.150	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	1.818	0.245	1.436	1.517	1.557	1.669	1.792	1.993	2.058	2.129	2.271
12–15 years	232	2.475	0.436	1.731	1.867	2.024	2.187	2.458	2.766	2.939	3.006	3.191
16–19 years	217	2.948	0.343	2.383	2.482	2.585	2.703	2.945	3.189	3.295	3.389	3.511
20–29 years	192	3.077	0.307	2.623	2.696	2.761	2.862	3.017	3.288	3.413	3.500	3.669
30–39 years	149	3.055	0.370	2.406	2.565	2.667	2.848	3.042	3.288	3.378	3.510	3.713
40–49 years	143	2.939	0.350	2.418	2.476	2.536	2.686	2.909	3.156	3.284	3.415	3.561
50–59 years	98	2.985	0.446	2.286	2.379	2.480	2.648	3.011	3.263	3.422	3.598	3.836
60–69 years	96	*3.082	0.493	*2.388	*2.453	*2.575	*2.721	*3.011	*3.338	*3.508	*3.628	†
70–79 years	33	*3.024	0.486	†	†	*2.496	*2.605	*2.999	*3.381	*3.509	*3.642	†
80 years and over	12	*2.952	0.430	†	†	†	*2.750	*2.909	*3.176	*3.276	†	†
20 years and over, age adjusted	723	3.018	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	1.856	0.255	1.449	1.534	1.580	1.677	1.817	2.049	2.137	2.180	2.285
12–15 years	220	2.424	0.437	1.759	1.852	1.926	2.087	2.392	2.749	2.898	2.965	3.217
16–19 years	225	3.039	0.368	2.387	2.543	2.654	2.805	3.051	3.251	3.459	3.525	3.635
20–29 years	281	3.145	0.329	2.616	2.731	2.815	2.919	3.131	3.366	3.476	3.578	3.721
30–39 years	330	3.096	0.349	2.551	2.615	2.721	2.823	3.120	3.317	3.440	3.539	3.678
40–49 years	302	3.127	0.389	2.512	2.622	2.699	2.836	3.108	3.391	3.500	3.613	3.765
50–59 years	305	3.140	0.430	2.425	2.560	2.669	2.860	3.143	3.435	3.578	3.656	3.863
60–69 years	231	3.199	0.433	2.422	2.600	2.751	2.908	3.178	3.491	3.614	3.738	3.895
70–79 years	217	3.203	0.529	2.410	2.545	2.660	2.872	3.133	3.506	3.762	3.923	4.144
80 years and over	131	3.258	0.607	2.439	2.551	2.645	2.841	3.172	3.536	3.825	4.137	†
20 years and over, age adjusted	1,797	3.146	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	1.968	0.276	1.563	1.660	1.706	1.774	1.957	2.146	2.238	2.297	2.428
12–15 years	232	2.485	0.443	1.698	1.916	1.996	2.196	2.485	2.795	2.910	3.038	3.221
16–19 years	255	3.187	0.382	2.619	2.731	2.785	2.891	3.161	3.418	3.612	3.693	3.823
20–29 years	158	3.347	0.415	2.716	2.809	2.943	3.106	3.302	3.560	3.753	3.925	4.018
30–39 years	140	3.316	0.393	2.715	2.836	2.913	3.015	3.326	3.543	3.709	3.811	†
40–49 years	140	3.299	0.425	2.653	2.867	2.940	3.036	3.219	3.545	3.751	3.841	4.154
50–59 years	108	3.361	0.492	2.637	2.766	2.813	2.953	3.283	3.665	3.910	4.041	4.199
60–69 years	140	3.331	0.511	2.508	2.640	2.805	3.005	3.338	3.644	3.870	4.024	4.152
70–79 years	64	*3.513	0.501	*2.658	*2.887	*2.939	*3.122	*3.473	*3.863	*4.072	*4.195	*4.279
80 years and over	13	*3.366	0.641	†	†	†	*2.858	*3.189	†	†	†	†
20 years and over, age adjusted	763	3.345	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	1.968	0.359	1.490	1.570	1.617	1.694	1.900	2.180	2.335	2.464	2.628
12–15 years	707	2.766	0.415	2.073	2.225	2.349	2.507	2.785	3.019	3.161	3.281	3.467
16–19 years	631	3.004	0.337	2.496	2.560	2.650	2.760	2.982	3.215	3.327	3.436	3.599
20–29 years	592	3.161	0.343	2.623	2.765	2.803	2.914	3.142	3.405	3.504	3.574	3.723
30–39 years	644	3.176	0.355	2.610	2.708	2.817	2.939	3.170	3.407	3.534	3.612	3.719
40–49 years	750	3.149	0.403	2.530	2.692	2.776	2.867	3.117	3.404	3.541	3.662	3.783
50–59 years	592	2.947	0.430	2.304	2.409	2.493	2.628	2.914	3.243	3.430	3.535	3.669
60–69 years	590	2.847	0.441	2.202	2.352	2.410	2.523	2.801	3.122	3.314	3.439	3.669
70–79 years	325	2.705	0.493	1.931	2.138	2.206	2.362	2.655	3.018	3.191	3.308	3.486
80 years and over	161	2.784	0.454	2.059	2.185	2.304	2.422	2.762	3.128	3.308	3.360	3.440
20 years and over, age adjusted	3,654	3.041	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 14. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	1.961	0.362	1.470	1.544	1.586	1.675	1.925	2.189	2.330	2.416	2.603
12–15 years	228	2.725	0.353	2.139	2.259	2.346	2.517	2.733	2.931	3.074	3.154	3.314
16–19 years	178	2.925	0.334	2.447	2.480	2.547	2.654	2.923	3.143	3.221	3.321	3.413
20–29 years	144	3.043	0.329	2.513	2.617	2.691	2.826	3.014	3.277	3.436	3.502	3.555
30–39 years	149	3.141	0.403	2.521	2.653	2.756	2.882	3.122	3.353	3.519	3.598	†
40–49 years	136	3.084	0.330	2.561	2.657	2.729	2.824	3.105	3.295	3.422	3.503	3.608
50–59 years	102	*2.860	0.514	*2.097	*2.235	*2.365	*2.496	*2.823	*3.155	*3.325	*3.384	*3.687
60–69 years	129	*2.685	0.424	*2.057	*2.144	*2.205	*2.320	*2.712	*2.954	*3.064	*3.171	*3.371
70–79 years	42	*2.473	0.443	†	*1.908	*2.004	*2.136	*2.480	*2.721	*2.760	*3.095	†
80 years and over	8	*2.280	0.553	†	†	†	†	*2.092	†	†	†	†
20 years and over, age adjusted	710	2.925	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	1.943	0.336	1.489	1.575	1.622	1.694	1.874	2.129	2.292	2.388	2.605
12–15 years	178	2.742	0.415	2.069	2.195	2.297	2.474	2.752	3.013	3.110	3.235	3.399
16–19 years	172	2.988	0.317	2.511	2.562	2.658	2.743	2.971	3.199	3.302	3.378	3.474
20–29 years	236	3.163	0.316	2.646	2.779	2.809	2.936	3.143	3.394	3.489	3.555	3.690
30–39 years	260	3.162	0.328	2.625	2.730	2.802	2.930	3.170	3.370	3.476	3.581	3.652
40–49 years	353	3.143	0.399	2.532	2.699	2.778	2.864	3.113	3.400	3.523	3.621	3.767
50–59 years	281	2.959	0.419	2.335	2.419	2.496	2.660	2.915	3.254	3.410	3.532	3.653
60–69 years	251	2.842	0.435	2.227	2.359	2.411	2.521	2.799	3.111	3.303	3.431	3.658
70–79 years	204	2.702	0.496	1.903	2.135	2.198	2.355	2.653	2.999	3.183	3.314	3.485
80 years and over	121	2.794	0.426	2.066	2.198	2.332	2.436	2.779	3.117	3.287	3.360	3.424
20 years and over, age adjusted	1,706	3.039	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	2.123	0.401	1.572	1.664	1.751	1.829	2.069	2.394	2.506	2.573	2.831
12–15 years	225	2.934	0.404	2.191	2.394	2.525	2.645	2.969	3.218	3.369	3.464	3.557
16–19 years	202	3.196	0.342	2.680	2.754	2.856	2.967	3.152	3.433	3.557	3.645	†
20–29 years	128	3.325	0.393	2.547	2.802	2.918	3.051	3.372	3.575	3.722	3.831	3.936
30–39 years	143	3.364	0.357	2.787	2.983	3.029	3.139	3.314	3.592	3.695	3.733	3.891
40–49 years	165	3.285	0.450	2.590	2.724	2.812	2.987	3.265	3.570	3.703	3.777	3.947
50–59 years	131	3.092	0.397	2.486	2.572	2.654	2.786	3.095	3.429	3.502	3.598	3.721
60–69 years	141	3.071	0.492	2.284	2.475	2.584	2.781	3.016	3.365	3.581	3.640	†
70–79 years	54	*2.963	0.423	*2.281	*2.413	*2.551	*2.696	*2.980	*3.186	*3.286	*3.483	*3.555
80 years and over	22	*2.834	0.651	†	†	*2.305	*2.364	*2.569	*3.230	†	†	†
20 years and over, age adjusted	784	3.209	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 15. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	1.908	0.255	1.490	1.584	1.642	1.737	1.887	2.070	2.184	2.240	2.339
12–15 years	786	2.483	0.444	1.806	1.910	1.984	2.135	2.449	2.793	2.969	3.094	3.229
16–19 years	775	3.126	0.388	2.498	2.629	2.729	2.861	3.117	3.374	3.529	3.626	3.785
20–29 years	711	3.244	0.353	2.697	2.808	2.889	2.998	3.217	3.465	3.599	3.701	3.850
30–39 years	728	3.183	0.376	2.563	2.683	2.784	2.923	3.175	3.431	3.553	3.666	3.808
40–49 years	689	3.194	0.406	2.554	2.676	2.772	2.894	3.167	3.456	3.613	3.714	3.873
50–59 years	613	3.205	0.458	2.494	2.609	2.701	2.897	3.190	3.516	3.668	3.799	3.960
60–69 years	555	3.277	0.460	2.517	2.693	2.792	2.986	3.243	3.565	3.753	3.837	4.038
70–79 years	354	3.281	0.543	2.500	2.583	2.704	2.929	3.230	3.616	3.906	4.021	4.286
80 years and over	173	3.32	0.638	2.473	2.628	2.711	2.885	3.226	3.598	3.894	4.243	4.492
20 years and over, age adjusted	3,823	3.224	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	1.857	0.239	1.463	1.547	1.592	1.704	1.845	1.997	2.073	2.162	2.282
12–15 years	233	2.523	0.446	1.809	1.931	2.067	2.215	2.480	2.817	3.034	3.094	3.247
16–19 years	216	3.009	0.355	2.428	2.507	2.656	2.767	3.018	3.245	3.361	3.443	3.598
20–29 years	194	3.149	0.299	2.688	2.780	2.833	2.925	3.112	3.327	3.476	3.545	3.682
30–39 years	153	3.12	0.381	2.451	2.612	2.714	2.906	3.106	3.359	3.480	3.552	3.797
40–49 years	146	3.002	0.360	2.471	2.527	2.597	2.767	2.987	3.215	3.358	3.445	3.648
50–59 years	102	3.048	0.453	2.317	2.440	2.537	2.709	3.055	3.324	3.577	3.638	3.852
60–69 years	99	*3.159	0.492	*2.424	*2.551	*2.677	*2.808	*3.096	*3.437	*3.540	*3.739	*4.108
70–79 years	36	*3.111	0.494	†	*2.512	*2.521	*2.646	*3.112	*3.456	*3.546	†	†
80 years and over	12	*3.013	0.429	†	†	†	*2.727	*2.930	*3.269	*3.323	†	†
20 years and over, age adjusted	742	3.087	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	207	1.907	0.249	1.490	1.582	1.643	1.737	1.883	2.086	2.181	2.225	2.305
12–15 years	220	2.475	0.437	1.830	1.902	1.978	2.125	2.431	2.771	2.957	3.014	3.227
16–19 years	226	3.11	0.377	2.428	2.612	2.719	2.866	3.114	3.359	3.489	3.584	3.726
20–29 years	285	3.235	0.338	2.676	2.811	2.898	2.997	3.214	3.446	3.585	3.653	3.837
30–39 years	332	3.175	0.363	2.564	2.679	2.781	2.909	3.184	3.415	3.537	3.631	3.742
40–49 years	310	3.191	0.394	2.567	2.684	2.772	2.894	3.165	3.453	3.580	3.694	3.866
50–59 years	316	3.207	0.447	2.499	2.611	2.694	2.925	3.200	3.516	3.667	3.790	3.922
60–69 years	243	3.284	0.441	2.536	2.693	2.801	3.004	3.262	3.571	3.746	3.829	3.956
70–79 years	231	3.257	0.545	2.489	2.561	2.687	2.907	3.201	3.593	3.805	4.014	4.285
80 years and over	135	3.334	0.645	2.475	2.626	2.710	2.890	3.232	3.611	3.891	4.267	†
20 years and over, age adjusted	1,852	3.22	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	2.021	0.267	1.601	1.728	1.764	1.853	1.984	2.186	2.284	2.337	2.469
12–15 years	231	2.538	0.446	1.796	1.968	2.055	2.230	2.518	2.851	3.011	3.131	3.241
16–19 years	256	3.265	0.399	2.674	2.802	2.862	2.972	3.246	3.475	3.736	3.833	3.968
20–29 years	157	3.436	0.422	2.786	2.920	3.028	3.189	3.420	3.648	3.831	4.012	4.145
30–39 years	143	3.403	0.398	2.763	2.914	2.975	3.112	3.405	3.636	3.839	3.889	4.081
40–49 years	147	3.371	0.434	2.700	2.890	2.976	3.105	3.319	3.596	3.835	3.904	4.228
50–59 years	114	3.436	0.487	2.716	2.806	2.906	3.092	3.376	3.772	3.963	4.117	4.268
60–69 years	147	3.446	0.535	2.593	2.754	2.860	3.099	3.425	3.786	4.064	4.134	4.285
70–79 years	62	*3.617	0.510	†	*2.968	*3.017	*3.237	*3.623	*3.993	*4.172	*4.318	*4.420
80 years and over	14	*3.542	0.675	†	†	†	*2.934	*3.298	†	†	†	†
20 years and over, age adjusted	784	3.436	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	2.035	0.359	1.549	1.632	1.690	1.769	1.963	2.248	2.411	2.515	2.692
12–15 years	708	2.849	0.424	2.150	2.294	2.414	2.572	2.867	3.110	3.254	3.334	3.580
16–19 years	632	3.107	0.352	2.554	2.647	2.744	2.868	3.093	3.315	3.470	3.545	3.756
20–29 years	596	3.27	0.349	2.732	2.852	2.916	3.006	3.261	3.521	3.620	3.706	3.858
30–39 years	653	3.288	0.360	2.684	2.826	2.924	3.053	3.282	3.513	3.646	3.742	3.825
40–49 years	751	3.257	0.410	2.636	2.785	2.875	2.979	3.242	3.507	3.668	3.765	3.900
50–59 years	607	3.056	0.439	2.396	2.506	2.584	2.744	3.024	3.343	3.541	3.640	3.786
60–69 years	603	2.952	0.453	2.246	2.440	2.521	2.616	2.886	3.213	3.434	3.565	3.793
70–79 years	330	2.802	0.503	2.062	2.201	2.304	2.446	2.757	3.121	3.303	3.393	3.627
80 years and over	161	2.891	0.466	2.154	2.317	2.428	2.506	2.865	3.190	3.435	3.505	3.621
20 years and over, age adjusted	3,701	3.149	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 15. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	2.026	0.360	1.558	1.612	1.646	1.742	1.991	2.250	2.387	2.486	2.695
12–15 years	228	2.8	0.366	2.207	2.313	2.396	2.586	2.786	3.008	3.118	3.233	3.378
16–19 years	178	3.026	0.344	2.515	2.572	2.649	2.745	3.019	3.255	3.350	3.427	3.509
20–29 years	145	3.143	0.333	2.609	2.709	2.803	2.900	3.110	3.387	3.540	3.595	3.665
30–39 years	149	3.251	0.402	2.620	2.765	2.826	2.982	3.257	3.467	3.620	3.701	†
40–49 years	137	3.177	0.335	2.647	2.733	2.793	2.900	3.182	3.384	3.496	3.568	3.756
50–59 years	103	*2.949	0.510	*2.155	*2.325	*2.445	*2.596	*2.929	*3.216	*3.418	*3.535	*3.751
60–69 years	137	*2.738	0.424	*2.119	*2.163	*2.227	*2.422	*2.753	*3.012	*3.108	*3.287	*3.419
70–79 years	44	*2.560	0.450	†	*1.975	*2.084	*2.199	*2.560	*2.817	*3.009	*3.134	†
80 years and over	6	*2.442	0.670	†	†	†	†	*2.196	†	†	†	†
20 years and over, age adjusted	721	3.021	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	2.008	0.331	1.554	1.639	1.694	1.766	1.924	2.168	2.363	2.447	2.635
12–15 years	178	2.823	0.421	2.145	2.259	2.384	2.540	2.835	3.101	3.220	3.281	3.507
16–19 years	173	3.088	0.333	2.550	2.639	2.749	2.852	3.081	3.299	3.405	3.495	3.614
20–29 years	239	3.272	0.325	2.755	2.870	2.920	3.012	3.265	3.508	3.602	3.694	3.819
30–39 years	265	3.276	0.335	2.733	2.835	2.916	3.051	3.286	3.489	3.600	3.710	3.793
40–49 years	353	3.25	0.406	2.621	2.802	2.875	2.975	3.243	3.494	3.640	3.746	3.855
50–59 years	287	3.071	0.431	2.401	2.507	2.591	2.750	3.030	3.356	3.544	3.638	3.784
60–69 years	252	2.95	0.444	2.298	2.450	2.526	2.616	2.866	3.214	3.427	3.564	3.790
70–79 years	204	2.8	0.504	2.007	2.206	2.299	2.460	2.755	3.111	3.303	3.408	3.644
80 years and over	121	2.899	0.439	2.160	2.320	2.456	2.545	2.895	3.190	3.421	3.506	3.603
20 years and over, age adjusted	1,721	3.147	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	2.196	0.406	1.612	1.742	1.819	1.898	2.128	2.464	2.576	2.691	2.922
12–15 years	226	3.033	0.418	2.252	2.475	2.607	2.765	3.049	3.329	3.502	3.589	3.657
16–19 years	202	3.316	0.351	2.775	2.867	2.946	3.081	3.269	3.522	3.701	3.804	†
20–29 years	127	3.442	0.391	2.746	2.893	3.022	3.154	3.508	3.681	3.855	3.955	4.034
30–39 years	146	3.479	0.363	2.856	3.085	3.162	3.247	3.438	3.701	3.801	3.862	3.979
40–49 years	165	3.41	0.455	2.683	2.838	2.950	3.102	3.402	3.695	3.805	3.937	4.045
50–59 years	139	3.186	0.402	2.562	2.646	2.755	2.901	3.188	3.484	3.577	3.720	3.809
60–69 years	143	3.181	0.507	2.389	2.557	2.685	2.835	3.144	3.496	3.640	3.827	†
70–79 years	53	*3.089	0.426	*2.357	*2.526	*2.686	*2.849	*3.101	*3.327	*3.390	*3.562	*3.713
80 years and over	23	*2.945	0.682	†	†	*2.371	*2.460	*2.636	*3.329	†	†	†
20 years and over, age adjusted	796	3.324	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 16. Total proximal femur bone mineral density (gm/cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	0.747	0.098	0.594	0.626	0.646	0.679	0.738	0.806	0.836	0.871	0.929
12–15 years	778	0.924	0.152	0.689	0.731	0.765	0.817	0.914	1.021	1.085	1.132	1.192
16–19 years	762	1.086	0.148	0.850	0.907	0.941	0.982	1.069	1.181	1.240	1.284	1.345
20–29 years	722	1.081	0.130	0.870	0.919	0.955	0.990	1.078	1.163	1.215	1.248	1.292
30–39 years	736	1.045	0.136	0.826	0.878	0.909	0.953	1.039	1.125	1.178	1.222	1.290
40–49 years	721	1.046	0.131	0.833	0.882	0.914	0.966	1.045	1.130	1.175	1.196	1.243
50–59 years	670	1.020	0.144	0.790	0.836	0.877	0.923	1.013	1.113	1.169	1.203	1.273
60–69 years	689	1.001	0.143	0.770	0.822	0.857	0.904	0.999	1.087	1.144	1.194	1.254
70–79 years	487	0.966	0.142	0.731	0.790	0.818	0.873	0.960	1.049	1.095	1.138	1.210
80 years and over	265	0.919	0.155	0.667	0.742	0.766	0.813	0.896	1.019	1.075	1.124	1.190
20 years and over, age adjusted	4,290	1.031	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	0.739	0.091	0.603	0.624	0.643	0.674	0.730	0.796	0.834	0.859	0.912
12–15 years	232	0.937	0.157	0.683	0.723	0.778	0.830	0.938	1.040	1.111	1.137	1.205
16–19 years	212	1.063	0.144	0.839	0.899	0.923	0.955	1.044	1.147	1.225	1.268	1.327
20–29 years	200	1.078	0.114	0.904	0.939	0.960	0.996	1.076	1.159	1.193	1.217	1.249
30–39 years	153	1.065	0.111	0.880	0.919	0.947	0.986	1.057	1.146	1.183	1.211	1.258
40–49 years	154	1.033	0.125	0.830	0.874	0.892	0.949	1.029	1.112	1.162	1.206	1.239
50–59 years	111	1.006	0.151	0.760	0.817	0.847	0.917	0.999	1.112	1.160	1.209	1.257
60–69 years	118	1.013	0.139	0.788	0.859	0.877	0.915	0.999	1.099	1.152	1.171	1.218
70–79 years	47	*0.952	0.129	†	*0.781	*0.821	*0.868	*0.931	*1.023	*1.099	*1.154	†
80 years and over	14	*0.878	0.146	†	†	†	*0.761	*0.815	*0.979	*1.082	†	†
20 years and over, age adjusted	797	1.028	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	0.739	0.096	0.589	0.613	0.640	0.671	0.732	0.792	0.828	0.846	0.899
12–15 years	218	0.915	0.146	0.691	0.720	0.759	0.804	0.912	1.008	1.068	1.123	1.165
16–19 years	223	1.071	0.141	0.836	0.897	0.938	0.979	1.061	1.160	1.224	1.244	1.300
20–29 years	285	1.067	0.120	0.868	0.916	0.951	0.983	1.059	1.153	1.194	1.228	1.272
30–39 years	337	1.029	0.134	0.804	0.857	0.894	0.942	1.028	1.113	1.151	1.201	1.258
40–49 years	329	1.040	0.130	0.821	0.869	0.914	0.966	1.040	1.123	1.167	1.193	1.227
50–59 years	341	1.015	0.142	0.766	0.830	0.875	0.920	1.007	1.109	1.161	1.195	1.257
60–69 years	309	0.997	0.137	0.776	0.822	0.859	0.903	0.994	1.078	1.138	1.175	1.243
70–79 years	330	0.961	0.143	0.727	0.782	0.815	0.868	0.960	1.047	1.089	1.129	1.200
80 years and over	214	0.917	0.157	0.660	0.738	0.766	0.812	0.886	1.016	1.075	1.123	1.190
20 years and over, age adjusted	2,145	1.022	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	0.808	0.099	0.647	0.688	0.718	0.739	0.806	0.863	0.915	0.938	0.968
12–15 years	227	0.964	0.162	0.732	0.751	0.783	0.844	0.959	1.054	1.136	1.192	1.261
16–19 years	251	1.163	0.164	0.884	0.965	0.990	1.053	1.153	1.280	1.352	1.392	1.442
20–29 years	160	1.155	0.156	0.907	0.964	0.990	1.069	1.145	1.242	1.304	1.353	1.429
30–39 years	145	1.136	0.146	0.893	0.956	0.979	1.039	1.126	1.242	1.289	1.304	1.359
40–49 years	151	1.094	0.150	0.862	0.907	0.935	0.985	1.106	1.182	1.221	1.275	1.355
50–59 years	126	1.100	0.157	0.851	0.920	0.941	0.994	1.076	1.187	1.286	1.323	1.369
60–69 years	185	1.066	0.169	0.787	0.841	0.904	0.966	1.047	1.191	1.231	1.273	1.349
70–79 years	75	*1.033	0.147	*0.812	*0.848	*0.863	*0.928	*1.030	*1.162	*1.208	*1.218	*1.239
80 years and over	22	*0.959	0.143	†	*0.776	*0.815	*0.837	*0.914	*1.046	*1.092	†	†
20 years and over, age adjusted	864	1.101	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	0.704	0.111	0.550	0.579	0.602	0.625	0.683	0.768	0.823	0.862	0.905
12–15 years	715	0.909	0.136	0.696	0.736	0.771	0.811	0.904	0.998	1.051	1.082	1.147
16–19 years	673	0.971	0.129	0.762	0.798	0.832	0.891	0.969	1.062	1.104	1.130	1.188
20–29 years	635	0.973	0.124	0.786	0.822	0.841	0.888	0.960	1.055	1.110	1.135	1.178
30–39 years	639	0.960	0.127	0.748	0.788	0.821	0.874	0.963	1.043	1.081	1.115	1.190
40–49 years	750	0.954	0.133	0.743	0.783	0.816	0.864	0.943	1.035	1.088	1.119	1.171
50–59 years	595	0.898	0.136	0.712	0.735	0.763	0.800	0.889	0.983	1.032	1.063	1.139
60–69 years	633	0.855	0.126	0.648	0.703	0.724	0.768	0.854	0.938	0.975	1.011	1.072
70–79 years	425	0.803	0.139	0.572	0.634	0.661	0.713	0.800	0.885	0.930	0.981	1.045
80 years and over	253	0.745	0.131	0.520	0.585	0.608	0.644	0.752	0.831	0.869	0.906	0.934
20 years and over, age adjusted	3,930	0.918	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 16. Total proximal femur bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	0.716	0.113	0.546	0.593	0.610	0.640	0.702	0.772	0.840	0.873	0.933
12–15 years	227	0.902	0.121	0.715	0.742	0.762	0.807	0.901	0.983	1.032	1.058	1.109
16–19 years	186	0.945	0.120	0.765	0.798	0.811	0.860	0.945	1.017	1.062	1.091	1.116
20–29 years	148	0.956	0.126	0.756	0.792	0.821	0.867	0.939	1.040	1.095	1.126	1.179
30–39 years	137	0.968	0.115	0.785	0.810	0.821	0.891	0.968	1.046	1.084	1.106	1.146
40–49 years	133	0.976	0.136	0.766	0.807	0.845	0.889	0.956	1.052	1.114	1.132	1.215
50–59 years	97	*0.926	0.171	*0.691	*0.753	*0.782	*0.827	*0.901	*0.995	*1.062	*1.097	*1.117
60–69 years	130	*0.856	0.124	*0.633	*0.669	*0.746	*0.781	*0.852	*0.929	*0.971	*0.996	*1.042
70–79 years	49	*0.772	0.152	†	*0.569	*0.597	*0.653	*0.777	*0.878	*0.930	*0.986	†
80 years and over	12	*0.708	0.158	†	†	†	†	*0.661	†	†	†	†
20 years and over, age adjusted	706	0.921	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	0.691	0.103	0.553	0.578	0.600	0.621	0.668	0.736	0.797	0.833	0.883
12–15 years	185	0.902	0.133	0.692	0.736	0.772	0.804	0.898	0.990	1.043	1.059	1.129
16–19 years	198	0.967	0.125	0.761	0.795	0.824	0.891	0.967	1.050	1.097	1.121	1.172
20–29 years	262	0.971	0.114	0.800	0.828	0.849	0.889	0.961	1.050	1.099	1.125	1.152
30–39 years	267	0.955	0.125	0.744	0.783	0.824	0.875	0.962	1.036	1.072	1.106	1.187
40–49 years	357	0.944	0.131	0.740	0.777	0.809	0.854	0.931	1.028	1.084	1.107	1.149
50–59 years	291	0.893	0.133	0.714	0.731	0.758	0.794	0.885	0.973	1.031	1.060	1.128
60–69 years	286	0.852	0.120	0.653	0.705	0.722	0.766	0.853	0.933	0.971	0.999	1.042
70–79 years	274	0.802	0.139	0.566	0.630	0.658	0.714	0.796	0.883	0.929	0.948	1.040
80 years and over	191	0.743	0.125	0.527	0.592	0.611	0.646	0.747	0.820	0.865	0.893	0.920
20 years and over, age adjusted	1,928	0.913	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.771	0.113	0.600	0.633	0.651	0.686	0.761	0.845	0.893	0.920	0.974
12–15 years	226	0.974	0.137	0.759	0.803	0.837	0.872	0.966	1.060	1.117	1.152	1.204
16–19 years	206	1.035	0.128	0.821	0.853	0.898	0.946	1.026	1.125	1.172	1.211	1.232
20–29 years	136	1.036	0.147	0.798	0.828	0.884	0.941	1.025	1.133	1.184	1.230	1.283
30–39 years	140	1.010	0.130	0.788	0.850	0.875	0.918	1.005	1.083	1.140	1.196	1.229
40–49 years	160	1.012	0.141	0.777	0.818	0.857	0.917	1.016	1.102	1.153	1.184	1.224
50–59 years	134	0.949	0.140	0.727	0.776	0.802	0.829	0.957	1.036	1.099	1.123	1.183
60–69 years	141	0.911	0.170	0.616	0.693	0.738	0.803	0.909	1.015	1.078	1.111	†
70–79 years	66	*0.856	0.137	*0.604	*0.688	*0.712	*0.770	*0.855	*0.935	*0.999	*1.045	*1.089
80 years and over	31	*0.745	0.178	†	*0.519	*0.541	*0.592	*0.720	*0.881	†	†	†
20 years and over, age adjusted	808	0.970	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 17. Femur neck bone mineral density (gm/cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	0.710	0.094	0.566	0.595	0.613	0.637	0.703	0.763	0.802	0.835	0.886
12–15 years	778	0.853	0.133	0.647	0.682	0.712	0.761	0.846	0.934	0.995	1.029	1.085
16–19 years	762	0.994	0.152	0.758	0.805	0.845	0.887	0.984	1.083	1.148	1.192	1.260
20–29 years	722	0.963	0.132	0.748	0.810	0.841	0.872	0.949	1.047	1.103	1.136	1.187
30–39 years	736	0.900	0.131	0.699	0.745	0.771	0.805	0.894	0.971	1.034	1.081	1.132
40–49 years	721	0.879	0.123	0.688	0.727	0.755	0.788	0.878	0.948	0.992	1.021	1.108
50–59 years	670	0.839	0.128	0.640	0.688	0.707	0.753	0.828	0.914	0.971	1.002	1.062
60–69 years	689	0.812	0.129	0.614	0.655	0.674	0.723	0.803	0.888	0.939	0.973	1.042
70–79 years	487	0.776	0.131	0.591	0.625	0.648	0.692	0.762	0.839	0.892	0.938	1.020
80 years and over	265	0.735	0.132	0.546	0.580	0.602	0.647	0.719	0.807	0.878	0.902	0.974
20 years and over, age adjusted	4,290	0.870	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	206	0.709	0.088	0.575	0.601	0.616	0.634	0.704	0.771	0.797	0.827	0.859
12–15 years	232	0.872	0.146	0.644	0.694	0.720	0.769	0.864	0.962	1.016	1.067	1.135
16–19 years	212	0.978	0.147	0.756	0.790	0.829	0.866	0.959	1.064	1.134	1.202	1.238
20–29 years	200	0.967	0.111	0.784	0.825	0.863	0.890	0.959	1.048	1.088	1.116	1.135
30–39 years	153	0.920	0.115	0.740	0.769	0.798	0.826	0.913	1.003	1.054	1.074	1.107
40–49 years	154	0.875	0.121	0.684	0.727	0.749	0.791	0.865	0.955	0.998	1.039	1.089
50–59 years	111	0.829	0.128	0.644	0.675	0.701	0.735	0.816	0.918	0.979	1.025	1.047
60–69 years	118	0.832	0.125	0.671	0.711	0.723	0.746	0.804	0.906	0.940	0.945	1.035
70–79 years	47	*0.772	0.106	†	*0.651	*0.675	*0.697	*0.770	*0.825	*0.873	*0.886	†
80 years and over	14	*0.694	0.128	†	†	†	†	*0.674	*0.725	*0.782	†	†
20 years and over, age adjusted	797	0.873	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	205	0.701	0.090	0.563	0.584	0.605	0.634	0.697	0.755	0.784	0.817	0.853
12–15 years	218	0.844	0.123	0.649	0.676	0.714	0.761	0.845	0.915	0.973	1.010	1.044
16–19 years	223	0.980	0.147	0.754	0.803	0.842	0.881	0.959	1.073	1.119	1.161	1.212
20–29 years	285	0.948	0.124	0.740	0.810	0.835	0.864	0.935	1.019	1.082	1.116	1.168
30–39 years	337	0.884	0.127	0.675	0.744	0.765	0.795	0.872	0.954	1.014	1.063	1.113
40–49 years	329	0.871	0.121	0.682	0.719	0.752	0.781	0.874	0.938	0.983	1.002	1.102
50–59 years	341	0.832	0.123	0.630	0.688	0.707	0.751	0.819	0.899	0.949	0.989	1.041
60–69 years	309	0.807	0.123	0.615	0.654	0.674	0.718	0.799	0.881	0.932	0.965	1.026
70–79 years	330	0.770	0.130	0.583	0.618	0.642	0.683	0.756	0.834	0.886	0.931	0.998
80 years and over	214	0.734	0.134	0.546	0.576	0.602	0.644	0.716	0.806	0.877	0.902	1.002
20 years and over, age adjusted	2,145	0.861	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	0.773	0.096	0.628	0.647	0.676	0.709	0.761	0.835	0.862	0.894	0.939
12–15 years	227	0.885	0.148	0.658	0.696	0.740	0.783	0.879	0.971	1.045	1.079	1.125
16–19 years	251	1.064	0.159	0.803	0.860	0.881	0.955	1.053	1.173	1.255	1.291	1.320
20–29 years	160	1.038	0.157	0.796	0.849	0.878	0.918	1.024	1.128	1.188	1.244	1.310
30–39 years	145	0.982	0.143	0.730	0.821	0.845	0.885	0.965	1.081	1.146	1.162	1.210
40–49 years	151	0.938	0.140	0.726	0.770	0.791	0.831	0.938	1.024	1.073	1.109	1.166
50–59 years	126	0.916	0.154	0.678	0.705	0.766	0.816	0.891	1.012	1.082	1.122	1.167
60–69 years	185	0.888	0.154	0.655	0.688	0.727	0.785	0.873	0.985	1.052	1.095	1.159
70–79 years	75	*0.864	0.140	*0.648	*0.681	*0.714	*0.766	*0.853	*0.916	*1.030	*1.060	*1.103
80 years and over	22	*0.781	0.115	†	†	*0.659	*0.715	*0.747	*0.862	†	†	†
20 years and over, age adjusted	864	0.944	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	0.667	0.103	0.524	0.554	0.569	0.592	0.647	0.729	0.781	0.815	0.862
12–15 years	715	0.848	0.134	0.646	0.680	0.707	0.759	0.841	0.928	0.983	1.025	1.094
16–19 years	673	0.900	0.130	0.686	0.743	0.766	0.812	0.900	0.984	1.036	1.069	1.121
20–29 years	635	0.889	0.125	0.711	0.739	0.764	0.801	0.881	0.964	1.015	1.046	1.108
30–39 years	639	0.856	0.123	0.664	0.694	0.727	0.774	0.843	0.935	0.976	1.013	1.072
40–49 years	750	0.835	0.129	0.644	0.673	0.701	0.743	0.822	0.913	0.967	0.999	1.059
50–59 years	595	0.772	0.125	0.588	0.619	0.637	0.683	0.762	0.839	0.896	0.932	1.014
60–69 years	633	0.728	0.115	0.565	0.592	0.610	0.646	0.711	0.803	0.850	0.883	0.923
70–79 years	425	0.682	0.121	0.502	0.537	0.556	0.594	0.670	0.758	0.800	0.832	0.906
80 years and over	253	0.633	0.120	0.445	0.495	0.514	0.545	0.628	0.703	0.741	0.770	0.833
20 years and over, age adjusted	3,930	0.806	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 17. Femur neck bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Females—Con.												
Mexican American:												
8–11 years	234	0.681	0.106	0.522	0.556	0.586	0.606	0.669	0.732	0.787	0.833	0.886
12–15 years	227	0.847	0.123	0.651	0.691	0.710	0.756	0.835	0.917	0.986	0.999	1.063
16–19 years	186	0.875	0.122	0.703	0.731	0.751	0.784	0.870	0.945	0.988	1.012	1.071
20–29 years	148	0.870	0.116	0.692	0.721	0.746	0.783	0.861	0.940	0.993	1.017	1.074
30–39 years	137	0.867	0.108	0.692	0.716	0.753	0.790	0.869	0.933	0.962	0.984	1.061
40–49 years	133	0.848	0.125	0.659	0.698	0.726	0.764	0.833	0.925	0.955	0.987	1.042
50–59 years	97	*0.801	0.144	*0.600	*0.641	*0.669	*0.709	*0.788	*0.859	*0.925	*0.967	*1.014
60–69 years	130	*0.731	0.106	*0.582	*0.602	*0.620	*0.663	*0.715	*0.790	*0.821	*0.866	*0.904
70–79 years	49	*0.665	0.125	†	*0.480	*0.512	*0.576	*0.668	*0.755	*0.792	*0.828	*0.850
80 years and over	12	*0.596	0.102	†	†	†	†	*0.554	*0.677	†	†	†
20 years and over, age adjusted	706	0.810	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	0.652	0.094	0.523	0.545	0.569	0.585	0.631	0.698	0.749	0.782	0.845
12–15 years	185	0.840	0.130	0.633	0.665	0.703	0.754	0.836	0.918	0.962	1.018	1.076
16–19 years	198	0.896	0.122	0.683	0.746	0.766	0.812	0.904	0.974	1.023	1.050	1.108
20–29 years	262	0.884	0.113	0.718	0.742	0.771	0.805	0.880	0.952	0.995	1.022	1.078
30–39 years	267	0.849	0.119	0.663	0.693	0.727	0.774	0.835	0.924	0.967	0.997	1.060
40–49 years	357	0.821	0.124	0.643	0.665	0.692	0.736	0.805	0.903	0.951	0.986	1.021
50–59 years	291	0.763	0.122	0.583	0.616	0.634	0.674	0.752	0.833	0.875	0.906	1.014
60–69 years	286	0.723	0.106	0.565	0.597	0.614	0.647	0.710	0.789	0.845	0.867	0.915
70–79 years	274	0.676	0.117	0.501	0.532	0.551	0.594	0.667	0.751	0.787	0.825	0.896
80 years and over	191	0.629	0.115	0.445	0.499	0.515	0.546	0.627	0.692	0.729	0.759	0.802
20 years and over, age adjusted	1,928	0.799	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.730	0.108	0.573	0.596	0.617	0.650	0.727	0.798	0.834	0.863	0.888
12–15 years	226	0.909	0.140	0.702	0.740	0.768	0.808	0.903	0.985	1.051	1.100	1.164
16–19 years	206	0.964	0.136	0.730	0.776	0.819	0.865	0.971	1.051	1.112	1.146	1.179
20–29 years	136	0.962	0.151	0.711	0.757	0.804	0.848	0.951	1.061	1.119	1.158	1.226
30–39 years	140	0.908	0.140	0.689	0.722	0.748	0.800	0.896	1.005	1.057	1.095	1.133
40–49 years	160	0.917	0.148	0.689	0.746	0.768	0.809	0.899	1.001	1.067	1.106	1.179
50–59 years	134	0.839	0.135	0.644	0.666	0.685	0.727	0.831	0.935	0.998	1.017	†
60–69 years	141	0.805	0.156	0.575	0.617	0.637	0.697	0.790	0.882	0.960	1.012	†
70–79 years	66	*0.761	0.136	*0.543	*0.571	*0.629	*0.659	*0.748	*0.841	*0.929	*0.958	†
80 years and over	31	*0.676	0.149	†	*0.479	*0.496	*0.520	*0.675	*0.787	†	†	†
20 years and over, age adjusted	808	0.876	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 18. Trochanter bone mineral density (gm/cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	0.585	0.081	0.464	0.490	0.506	0.528	0.581	0.629	0.662	0.692	0.735
12–15 years	778	0.740	0.134	0.538	0.569	0.598	0.647	0.731	0.824	0.885	0.916	0.991
16–19 years	762	0.845	0.136	0.622	0.679	0.708	0.741	0.841	0.942	0.990	1.030	1.078
20–29 years	722	0.811	0.117	0.636	0.669	0.698	0.724	0.804	0.882	0.931	0.969	1.008
30–39 years	736	0.780	0.115	0.601	0.637	0.657	0.696	0.773	0.854	0.896	0.926	0.980
40–49 years	721	0.791	0.114	0.614	0.640	0.665	0.711	0.789	0.863	0.909	0.933	0.972
50–59 years	670	0.777	0.128	0.574	0.613	0.643	0.685	0.775	0.859	0.913	0.938	0.999
60–69 years	689	0.772	0.126	0.569	0.619	0.643	0.683	0.765	0.857	0.901	0.932	0.986
70–79 years	487	0.751	0.133	0.534	0.583	0.625	0.670	0.742	0.825	0.882	0.914	0.977
80 years and over	265	0.725	0.143	0.523	0.563	0.584	0.620	0.703	0.804	0.877	0.932	0.984
20 years and over, age adjusted	4,290	0.782	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	0.581	0.078	0.467	0.489	0.503	0.525	0.574	0.621	0.658	0.684	0.728
12–15 years	232	0.748	0.134	0.545	0.574	0.605	0.647	0.734	0.833	0.896	0.926	0.966
16–19 years	212	0.815	0.128	0.613	0.670	0.692	0.723	0.802	0.900	0.964	0.997	1.048
20–29 years	200	0.797	0.099	0.649	0.675	0.695	0.722	0.794	0.856	0.893	0.915	0.957
30–39 years	153	0.778	0.093	0.617	0.659	0.687	0.707	0.774	0.847	0.875	0.895	0.936
40–49 years	154	0.764	0.104	0.598	0.624	0.660	0.694	0.761	0.828	0.860	0.884	0.929
50–59 years	111	0.746	0.125	0.561	0.574	0.604	0.661	0.733	0.830	0.880	0.896	0.934
60–69 years	118	0.754	0.120	0.581	0.610	0.636	0.667	0.745	0.816	0.856	0.918	0.956
70–79 years	47	*0.714	0.112	†	*0.575	*0.595	*0.642	*0.708	*0.780	*0.825	*0.888	†
80 years and over	14	*0.671	0.121	†	†	†	*0.564	*0.626	*0.719	*0.782	†	†
20 years and over, age adjusted	797	0.761	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	0.580	0.078	0.463	0.481	0.493	0.522	0.579	0.624	0.656	0.679	0.727
12–15 years	218	0.735	0.133	0.536	0.559	0.590	0.641	0.729	0.820	0.872	0.913	0.982
16–19 years	223	0.835	0.131	0.615	0.672	0.693	0.737	0.838	0.919	0.974	0.994	1.053
20–29 years	285	0.804	0.111	0.625	0.669	0.700	0.719	0.795	0.875	0.924	0.958	1.003
30–39 years	337	0.775	0.115	0.591	0.637	0.656	0.694	0.765	0.843	0.882	0.918	0.972
40–49 years	329	0.790	0.113	0.614	0.637	0.662	0.710	0.790	0.858	0.908	0.932	0.972
50–59 years	341	0.776	0.126	0.576	0.614	0.642	0.686	0.777	0.855	0.912	0.933	0.989
60–69 years	309	0.774	0.122	0.579	0.627	0.648	0.683	0.764	0.859	0.901	0.927	0.985
70–79 years	330	0.750	0.134	0.533	0.582	0.622	0.670	0.741	0.822	0.878	0.902	0.973
80 years and over	214	0.727	0.146	0.523	0.564	0.583	0.625	0.704	0.806	0.885	0.938	0.988
20 years and over, age adjusted	2,145	0.779	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	0.629	0.084	0.509	0.527	0.552	0.572	0.621	0.669	0.707	0.722	0.763
12–15 years	227	0.770	0.137	0.560	0.617	0.635	0.674	0.749	0.838	0.914	0.972	1.030
16–19 years	251	0.906	0.151	0.679	0.714	0.734	0.791	0.892	1.016	1.077	1.105	1.170
20–29 years	160	0.865	0.141	0.662	0.694	0.731	0.783	0.840	0.941	0.997	1.058	1.134
30–39 years	145	0.845	0.121	0.668	0.694	0.722	0.762	0.848	0.916	0.964	1.009	1.051
40–49 years	151	0.819	0.130	0.634	0.667	0.688	0.720	0.816	0.890	0.926	0.963	1.074
50–59 years	126	0.841	0.141	0.608	0.671	0.703	0.761	0.830	0.918	0.980	1.024	1.064
60–69 years	185	0.808	0.148	0.570	0.617	0.644	0.699	0.812	0.893	0.946	1.001	1.065
70–79 years	75	*0.803	0.140	*0.555	*0.649	*0.662	*0.690	*0.780	*0.915	*0.969	*0.989	*1.026
80 years and over	22	*0.731	0.126	†	*0.573	*0.593	*0.621	*0.713	*0.800	*0.877	†	†
20 years and over, age adjusted	864	0.830	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	0.555	0.095	0.424	0.443	0.468	0.489	0.537	0.612	0.653	0.685	0.734
12–15 years	715	0.713	0.120	0.535	0.566	0.589	0.626	0.705	0.789	0.836	0.865	0.916
16–19 years	673	0.742	0.112	0.562	0.593	0.617	0.662	0.739	0.820	0.858	0.881	0.930
20–29 years	635	0.724	0.108	0.558	0.597	0.617	0.649	0.708	0.800	0.836	0.864	0.908
30–39 years	639	0.714	0.109	0.536	0.577	0.600	0.637	0.715	0.778	0.819	0.852	0.906
40–49 years	750	0.719	0.114	0.550	0.577	0.607	0.641	0.708	0.793	0.826	0.861	0.915
50–59 years	595	0.671	0.115	0.506	0.536	0.558	0.589	0.663	0.734	0.776	0.817	0.874
60–69 years	633	0.645	0.110	0.471	0.506	0.535	0.563	0.637	0.712	0.754	0.786	0.846
70–79 years	425	0.605	0.119	0.418	0.463	0.491	0.522	0.594	0.674	0.711	0.756	0.811
80 years and over	253	0.567	0.110	0.394	0.433	0.442	0.491	0.562	0.641	0.681	0.708	0.758
20 years and over, age adjusted	3,930	0.687	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 18. Trochanter bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	0.565	0.095	0.427	0.461	0.475	0.503	0.550	0.619	0.663	0.698	0.738
12–15 years	227	0.698	0.105	0.545	0.565	0.580	0.619	0.692	0.772	0.799	0.818	0.884
16–19 years	186	0.708	0.108	0.552	0.579	0.602	0.634	0.701	0.769	0.803	0.819	0.859
20–29 years	148	0.704	0.110	0.544	0.572	0.587	0.623	0.682	0.779	0.818	0.846	0.902
30–39 years	137	0.709	0.100	0.536	0.574	0.592	0.634	0.697	0.777	0.809	0.832	0.883
40–49 years	133	0.721	0.113	0.541	0.581	0.607	0.641	0.708	0.784	0.825	0.856	0.914
50–59 years	97	*0.684	0.157	*0.489	*0.542	*0.566	*0.583	*0.657	*0.757	*0.789	*0.803	*0.849
60–69 years	130	*0.630	0.105	*0.444	*0.476	*0.522	*0.564	*0.627	*0.692	*0.738	*0.755	*0.778
70–79 years	49	*0.561	0.117	†	*0.405	*0.445	*0.469	*0.552	*0.643	*0.679	*0.714	†
80 years and over	12	*0.539	0.133	†	†	†	†	*0.497	†	†	†	†
20 years and over, age adjusted	706	0.678	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	0.544	0.089	0.431	0.441	0.461	0.487	0.525	0.597	0.634	0.661	0.705
12–15 years	185	0.712	0.119	0.535	0.562	0.589	0.629	0.706	0.778	0.832	0.860	0.902
16–19 years	198	0.745	0.109	0.562	0.597	0.623	0.666	0.744	0.820	0.866	0.881	0.926
20–29 years	262	0.725	0.102	0.558	0.604	0.627	0.653	0.711	0.804	0.836	0.848	0.903
30–39 years	267	0.713	0.107	0.538	0.577	0.599	0.637	0.716	0.776	0.812	0.847	0.899
40–49 years	357	0.716	0.114	0.548	0.574	0.604	0.635	0.705	0.793	0.823	0.845	0.908
50–59 years	291	0.668	0.112	0.507	0.537	0.557	0.586	0.663	0.728	0.767	0.813	0.875
60–69 years	286	0.644	0.105	0.473	0.509	0.536	0.563	0.641	0.710	0.747	0.776	0.834
70–79 years	274	0.606	0.121	0.416	0.463	0.492	0.523	0.596	0.675	0.711	0.759	0.808
80 years and over	191	0.568	0.105	0.401	0.436	0.450	0.496	0.564	0.637	0.672	0.692	0.743
20 years and over, age adjusted	1,928	0.686	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.608	0.098	0.472	0.497	0.512	0.530	0.603	0.669	0.714	0.744	0.780
12–15 years	226	0.763	0.118	0.573	0.604	0.645	0.676	0.761	0.834	0.891	0.920	0.972
16–19 years	206	0.786	0.112	0.592	0.631	0.671	0.704	0.784	0.869	0.919	0.945	0.969
20–29 years	136	0.762	0.120	0.572	0.607	0.637	0.669	0.755	0.834	0.892	0.908	0.975
30–39 years	140	0.749	0.112	0.584	0.603	0.620	0.664	0.749	0.812	0.866	0.897	0.948
40–49 years	160	0.756	0.122	0.561	0.592	0.618	0.668	0.752	0.838	0.890	0.916	0.946
50–59 years	134	0.707	0.120	0.522	0.560	0.589	0.615	0.696	0.769	0.836	0.871	0.938
60–69 years	141	0.686	0.147	0.452	0.514	0.537	0.588	0.688	0.784	0.838	0.864	0.946
70–79 years	66	*0.637	0.118	*0.433	*0.497	*0.515	*0.545	*0.627	*0.711	*0.748	*0.782	†
80 years and over	31	*0.547	0.132	†	†	*0.414	*0.432	*0.529	*0.660	*0.696	*0.740	†
20 years and over, age adjusted	808	0.721	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 19. Intertrochanter bone mineral density (gm/cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	0.830	0.117	0.647	0.680	0.715	0.747	0.824	0.900	0.941	0.973	1.044
12–15 years	778	1.044	0.176	0.761	0.816	0.865	0.919	1.031	1.165	1.236	1.278	1.344
16–19 years	762	1.251	0.163	0.987	1.044	1.092	1.146	1.238	1.357	1.422	1.470	1.522
20–29 years	722	1.267	0.150	1.027	1.075	1.114	1.163	1.265	1.361	1.417	1.444	1.509
30–39 years	736	1.233	0.160	0.980	1.035	1.074	1.128	1.226	1.325	1.393	1.442	1.507
40–49 years	721	1.231	0.155	0.973	1.042	1.085	1.136	1.229	1.329	1.386	1.410	1.491
50–59 years	670	1.205	0.171	0.913	0.997	1.035	1.093	1.201	1.317	1.381	1.425	1.499
60–69 years	689	1.181	0.170	0.896	0.971	1.004	1.070	1.169	1.287	1.360	1.410	1.484
70–79 years	487	1.136	0.165	0.869	0.924	0.967	1.018	1.127	1.243	1.293	1.348	1.421
80 years and over	265	1.075	0.185	0.774	0.869	0.897	0.946	1.049	1.190	1.266	1.333	1.403
20 years and over, age adjusted	4,290	1.214	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	0.818	0.107	0.658	0.678	0.702	0.739	0.813	0.887	0.927	0.960	1.002
12–15 years	232	1.057	0.183	0.748	0.806	0.865	0.931	1.053	1.180	1.261	1.285	1.364
16–19 years	212	1.225	0.164	0.973	1.028	1.060	1.108	1.208	1.319	1.410	1.461	1.512
20–29 years	200	1.266	0.138	1.048	1.098	1.126	1.168	1.255	1.357	1.411	1.422	1.473
30–39 years	153	1.264	0.135	1.055	1.099	1.124	1.162	1.256	1.360	1.398	1.434	1.512
40–49 years	154	1.224	0.150	0.992	1.033	1.057	1.113	1.226	1.318	1.372	1.435	†
50–59 years	111	1.197	0.180	0.901	0.971	1.009	1.073	1.191	1.317	1.382	1.423	1.536
60–69 years	118	1.206	0.161	†	1.024	1.035	1.094	1.195	1.315	1.357	1.398	1.474
70–79 years	47	*1.133	0.161	†	*0.928	*0.949	*1.012	*1.108	*1.205	*1.310	*1.394	†
80 years and over	14	*1.043	0.183	†	†	†	*0.883	*0.976	†	†	†	†
20 years and over, age adjusted	797	1.218	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	0.821	0.116	0.643	0.670	0.703	0.744	0.820	0.888	0.931	0.953	1.013
12–15 years	218	1.033	0.168	0.762	0.811	0.862	0.909	1.025	1.147	1.203	1.259	1.326
16–19 years	223	1.233	0.152	0.981	1.040	1.082	1.135	1.223	1.335	1.382	1.422	1.505
20–29 years	285	1.248	0.138	1.018	1.063	1.107	1.154	1.250	1.347	1.387	1.423	1.462
30–39 years	337	1.210	0.157	0.949	1.013	1.050	1.106	1.202	1.308	1.357	1.409	1.496
40–49 years	329	1.222	0.153	0.965	1.036	1.082	1.135	1.220	1.314	1.369	1.398	1.456
50–59 years	341	1.199	0.170	0.895	0.979	1.033	1.091	1.196	1.308	1.371	1.417	1.492
60–69 years	309	1.172	0.163	0.900	0.971	1.002	1.065	1.156	1.269	1.335	1.389	1.453
70–79 years	330	1.131	0.166	0.865	0.917	0.959	1.015	1.126	1.238	1.285	1.323	1.419
80 years and over	214	1.070	0.187	0.769	0.861	0.896	0.945	1.048	1.188	1.257	1.323	1.403
20 years and over, age adjusted	2,145	1.201	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	0.901	0.116	0.711	0.772	0.787	0.817	0.900	0.965	1.024	1.055	1.088
12–15 years	227	1.094	0.191	0.802	0.835	0.881	0.960	1.082	1.210	1.282	1.359	1.446
16–19 years	251	1.340	0.183	1.039	1.118	1.146	1.206	1.325	1.462	1.522	1.595	1.664
20–29 years	160	1.354	0.172	1.085	1.138	1.169	1.247	1.356	1.445	1.514	1.578	1.645
30–39 years	145	1.340	0.172	1.059	1.117	1.169	1.217	1.337	1.465	1.521	1.564	1.627
40–49 years	151	1.291	0.176	0.993	1.082	1.103	1.174	1.287	1.405	1.468	1.497	1.580
50–59 years	126	1.293	0.180	1.014	1.054	1.115	1.163	1.273	1.397	1.510	1.572	1.611
60–69 years	185	1.258	0.197	0.942	1.019	1.058	1.140	1.237	1.398	1.472	1.498	1.565
70–79 years	75	*1.208	0.170	*0.959	*0.990	*1.015	*1.080	*1.206	*1.336	*1.390	*1.421	*1.448
80 years and over	22	*1.126	0.172	†	†	†	*1.018	*1.062	*1.257	†	†	†
20 years and over, age adjusted	864	1.295	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	0.789	0.131	0.613	0.643	0.669	0.699	0.763	0.866	0.929	0.974	1.035
12–15 years	715	1.040	0.155	0.794	0.851	0.886	0.929	1.037	1.148	1.199	1.229	1.306
16–19 years	673	1.126	0.148	0.868	0.931	0.973	1.032	1.126	1.220	1.278	1.301	1.358
20–29 years	635	1.141	0.142	0.934	0.969	0.989	1.046	1.128	1.241	1.296	1.326	1.371
30–39 years	639	1.130	0.149	0.882	0.920	0.974	1.024	1.136	1.226	1.284	1.324	1.395
40–49 years	750	1.123	0.157	0.868	0.916	0.964	1.018	1.117	1.222	1.279	1.319	1.373
50–59 years	595	1.067	0.162	0.833	0.879	0.897	0.943	1.060	1.184	1.235	1.268	1.347
60–69 years	633	1.013	0.151	0.766	0.829	0.856	0.908	1.008	1.113	1.153	1.192	1.258
70–79 years	425	0.957	0.171	0.678	0.745	0.776	0.852	0.947	1.069	1.129	1.185	1.248
80 years and over	253	0.882	0.163	0.613	0.666	0.705	0.755	0.882	0.987	1.037	1.071	1.143
20 years and over, age adjusted	3,930	1.083	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 19. Intertrochanter bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	0.802	0.134	0.601	0.650	0.678	0.713	0.776	0.876	0.947	0.988	1.053
12–15 years	227	1.032	0.140	0.806	0.856	0.875	0.927	1.034	1.126	1.174	1.219	1.273
16–19 years	186	1.105	0.134	0.886	0.930	0.965	1.013	1.095	1.190	1.238	1.272	1.300
20–29 years	148	1.125	0.143	0.895	0.938	0.966	1.027	1.113	1.218	1.285	1.317	1.390
30–39 years	137	1.145	0.138	0.918	0.961	0.987	1.050	1.137	1.243	1.281	1.324	1.379
40–49 years	133	1.162	0.163	0.873	0.965	0.997	1.058	1.162	1.248	1.333	1.362	1.419
50–59 years	97	*1.108	0.200	*0.799	*0.865	*0.936	*0.989	*1.082	*1.197	*1.254	*1.327	*1.361
60–69 years	130	*1.024	0.155	*0.768	*0.819	*0.857	*0.925	*1.011	*1.129	*1.165	*1.216	*1.241
70–79 years	49	*0.928	0.192	†	*0.666	*0.700	*0.765	*0.929	*1.062	*1.152	*1.190	*1.211
80 years and over	12	*0.837	0.186	†	†	†	†	*0.780	*0.991	†	†	†
20 years and over, age adjusted	706	1.094	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	0.775	0.122	0.617	0.644	0.666	0.696	0.749	0.835	0.904	0.937	1.013
12–15 years	185	1.030	0.151	0.787	0.837	0.882	0.924	1.024	1.136	1.184	1.214	1.280
16–19 years	198	1.119	0.145	0.855	0.916	0.968	1.030	1.125	1.210	1.261	1.298	1.328
20–29 years	262	1.138	0.131	0.942	0.974	0.994	1.048	1.127	1.231	1.291	1.312	1.349
30–39 years	267	1.124	0.146	0.881	0.919	0.975	1.021	1.135	1.214	1.270	1.294	1.379
40–49 years	357	1.112	0.156	0.863	0.900	0.948	1.002	1.106	1.206	1.266	1.306	1.356
50–59 years	291	1.059	0.159	0.834	0.877	0.895	0.937	1.051	1.177	1.229	1.258	1.335
60–69 years	286	1.008	0.144	0.769	0.831	0.852	0.906	1.006	1.112	1.149	1.189	1.220
70–79 years	274	0.955	0.172	0.674	0.745	0.772	0.852	0.944	1.064	1.127	1.181	1.240
80 years and over	191	0.880	0.157	0.614	0.668	0.710	0.759	0.880	0.978	1.035	1.061	1.135
20 years and over, age adjusted	1,928	1.077	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.866	0.135	0.647	0.699	0.729	0.765	0.860	0.960	1.004	1.047	1.108
12–15 years	226	1.116	0.160	0.860	0.910	0.942	1.008	1.111	1.221	1.277	1.338	1.380
16–19 years	206	1.200	0.146	0.969	0.999	1.046	1.102	1.187	1.298	1.353	1.396	1.440
20–29 years	136	1.210	0.171	0.937	0.992	1.038	1.096	1.202	1.322	1.374	1.431	1.510
30–39 years	140	1.189	0.147	0.944	0.998	1.032	1.087	1.179	1.272	1.353	1.397	1.446
40–49 years	160	1.188	0.167	0.910	0.960	1.002	1.075	1.186	1.288	1.344	1.379	1.415
50–59 years	134	1.124	0.163	0.870	0.919	0.942	0.993	1.133	1.234	1.286	1.333	1.364
60–69 years	141	1.076	0.200	0.721	0.827	0.891	0.950	1.049	1.200	1.272	1.327	†
70–79 years	66	*1.010	0.160	†	*0.797	*0.844	*0.908	*1.006	*1.098	*1.187	*1.211	†
80 years and over	31	*0.878	0.230	†	*0.598	*0.627	*0.697	*0.857	*1.013	†	†	†
20 years and over, age adjusted	808	1.141	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

† Standard error not calculated by SUDAAN.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 20. Ward's triangle bone mineral density (gm/cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	0.689	0.117	0.517	0.543	0.572	0.608	0.674	0.765	0.810	0.842	0.899
12–15 years	778	0.826	0.158	0.589	0.622	0.655	0.712	0.811	0.924	0.995	1.022	1.100
16–19 years	762	0.941	0.175	0.672	0.714	0.757	0.824	0.925	1.042	1.112	1.175	1.262
20–29 years	722	0.874	0.159	0.651	0.681	0.717	0.769	0.854	0.970	1.035	1.090	1.157
30–39 years	736	0.764	0.158	0.534	0.574	0.599	0.647	0.753	0.868	0.922	0.962	1.006
40–49 years	721	0.693	0.146	0.483	0.527	0.546	0.594	0.683	0.774	0.842	0.880	0.947
50–59 years	670	0.634	0.146	0.412	0.458	0.490	0.531	0.624	0.715	0.785	0.832	0.902
60–69 years	689	0.574	0.149	0.363	0.401	0.419	0.461	0.562	0.658	0.720	0.782	0.844
70–79 years	487	0.524	0.148	0.329	0.358	0.388	0.422	0.508	0.590	0.665	0.715	0.803
80 years and over	265	0.477	0.149	0.252	0.310	0.343	0.375	0.452	0.560	0.616	0.673	0.726
20 years and over, age adjusted	4,290	0.696	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	206	0.683	0.111	0.504	0.529	0.552	0.602	0.683	0.760	0.809	0.828	0.863
12–15 years	232	0.849	0.174	0.589	0.627	0.677	0.733	0.832	0.958	1.018	1.091	1.148
16–19 years	212	0.931	0.161	0.697	0.735	0.759	0.814	0.927	1.036	1.098	1.175	1.224
20–29 years	200	0.876	0.134	0.671	0.705	0.741	0.776	0.860	0.969	1.013	1.042	1.112
30–39 years	153	0.787	0.144	0.556	0.603	0.639	0.682	0.785	0.871	0.937	0.977	1.033
40–49 years	154	0.702	0.132	0.491	0.541	0.568	0.604	0.701	0.798	0.826	0.859	0.916
50–59 years	111	0.621	0.144	0.411	0.442	0.476	0.523	0.604	0.711	0.792	0.822	0.877
60–69 years	118	0.607	0.138	0.434	0.465	0.474	0.502	0.575	0.692	0.731	0.759	0.829
70–79 years	47	*0.516	0.117	†	*0.403	*0.414	*0.422	*0.492	*0.572	*0.647	*0.693	†
80 years and over	14	*0.422	0.130	†	†	†	*0.311	*0.394	*0.484	*0.527	†	†
20 years and over, age adjusted	797	0.701	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	205	0.684	0.112	0.509	0.544	0.571	0.607	0.666	0.763	0.796	0.834	0.886
12–15 years	218	0.816	0.146	0.594	0.622	0.651	0.711	0.802	0.912	0.975	1.015	1.071
16–19 years	223	0.928	0.172	0.670	0.710	0.745	0.821	0.907	1.025	1.090	1.138	1.214
20–29 years	285	0.859	0.152	0.624	0.676	0.705	0.758	0.839	0.958	1.032	1.061	1.116
30–39 years	337	0.741	0.148	0.526	0.558	0.587	0.629	0.722	0.848	0.902	0.937	0.990
40–49 years	329	0.684	0.146	0.464	0.522	0.541	0.583	0.676	0.768	0.837	0.874	0.936
50–59 years	341	0.629	0.139	0.412	0.460	0.490	0.530	0.623	0.709	0.765	0.811	0.864
60–69 years	309	0.564	0.145	0.357	0.396	0.417	0.454	0.545	0.648	0.711	0.755	0.838
70–79 years	330	0.518	0.149	0.313	0.350	0.381	0.416	0.500	0.578	0.651	0.697	0.799
80 years and over	214	0.476	0.150	0.240	0.310	0.344	0.375	0.452	0.552	0.612	0.674	0.727
20 years and over, age adjusted	2,145	0.684	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	0.752	0.130	0.563	0.585	0.618	0.658	0.746	0.838	0.884	0.931	0.967
12–15 years	227	0.856	0.171	0.554	0.630	0.694	0.737	0.851	0.961	1.010	1.054	1.145
16–19 years	251	1.001	0.184	0.713	0.767	0.797	0.870	0.989	1.119	1.199	1.261	1.326
20–29 years	160	0.952	0.190	0.681	0.720	0.775	0.827	0.932	1.074	1.148	1.218	1.274
30–39 years	145	0.858	0.188	0.577	0.652	0.697	0.730	0.844	0.948	1.046	1.105	1.190
40–49 years	151	0.752	0.171	0.508	0.556	0.575	0.620	0.733	0.860	0.936	0.989	1.046
50–59 years	126	0.708	0.183	0.450	0.495	0.530	0.577	0.690	0.821	0.910	0.943	1.053
60–69 years	185	0.660	0.182	0.415	0.444	0.469	0.526	0.627	0.777	0.864	0.904	0.981
70–79 years	75	*0.605	0.144	*0.379	*0.413	*0.480	*0.509	*0.593	*0.677	*0.752	*0.781	*0.863
80 years and over	22	*0.515	0.155	†	†	*0.368	*0.424	*0.452	*0.590	†	†	†
20 years and over, age adjusted	864	0.772	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	0.627	0.124	0.461	0.487	0.509	0.538	0.607	0.699	0.755	0.794	0.870
12–15 years	715	0.830	0.159	0.594	0.635	0.669	0.719	0.823	0.921	0.994	1.028	1.111
16–19 years	673	0.871	0.150	0.637	0.678	0.701	0.765	0.863	0.965	1.029	1.076	1.136
20–29 years	635	0.839	0.149	0.612	0.659	0.696	0.741	0.831	0.927	0.986	1.030	1.107
30–39 years	639	0.767	0.143	0.546	0.590	0.623	0.666	0.754	0.857	0.918	0.959	1.007
40–49 years	750	0.706	0.150	0.487	0.525	0.557	0.595	0.697	0.793	0.857	0.908	0.968
50–59 years	595	0.617	0.151	0.402	0.443	0.471	0.513	0.605	0.699	0.776	0.820	0.902
60–69 years	633	0.541	0.139	0.355	0.384	0.405	0.449	0.519	0.616	0.677	0.732	0.807
70–79 years	425	0.484	0.134	0.294	0.332	0.355	0.394	0.455	0.565	0.614	0.654	0.743
80 years and over	253	0.426	0.133	0.230	0.282	0.309	0.341	0.403	0.495	0.532	0.591	0.676
20 years and over, age adjusted	3,930	0.681	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 20. Ward's triangle bone mineral density (gm/cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	0.642	0.127	0.471	0.490	0.515	0.546	0.629	0.717	0.773	0.810	0.874
12–15 years	227	0.834	0.157	0.600	0.627	0.662	0.708	0.843	0.932	0.999	1.038	1.101
16–19 years	186	0.854	0.141	0.643	0.683	0.700	0.761	0.838	0.944	1.002	1.026	1.089
20–29 years	148	0.825	0.143	0.614	0.639	0.677	0.716	0.813	0.910	0.962	1.013	1.073
30–39 years	137	0.789	0.125	0.580	0.630	0.657	0.702	0.775	0.880	0.938	0.963	†
40–49 years	133	0.741	0.147	0.515	0.563	0.581	0.652	0.727	0.829	0.871	0.908	0.982
50–59 years	97	*0.647	0.176	*0.416	*0.478	*0.496	*0.530	*0.617	*0.737	*0.809	*0.831	*0.900
60–69 years	130	*0.542	0.128	*0.330	*0.380	*0.416	*0.458	*0.541	*0.610	*0.655	*0.677	*0.740
70–79 years	49	*0.460	0.129	†	*0.277	*0.285	*0.351	*0.451	*0.559	*0.583	*0.598	†
80 years and over	12	*0.394	0.130	†	†	†	†	*0.352	†	†	†	†
20 years and over, age adjusted	706	0.692	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	0.615	0.118	0.436	0.485	0.506	0.537	0.595	0.683	0.731	0.776	0.853
12–15 years	185	0.826	0.158	0.592	0.634	0.666	0.722	0.821	0.904	0.969	1.006	1.111
16–19 years	198	0.864	0.143	0.634	0.677	0.700	0.764	0.861	0.944	1.017	1.064	1.105
20–29 years	262	0.834	0.137	0.611	0.670	0.704	0.746	0.828	0.914	0.966	1.004	1.040
30–39 years	267	0.759	0.141	0.534	0.592	0.618	0.658	0.748	0.844	0.895	0.948	1.005
40–49 years	357	0.695	0.148	0.483	0.517	0.548	0.585	0.684	0.787	0.843	0.894	0.957
50–59 years	291	0.609	0.148	0.392	0.438	0.465	0.511	0.592	0.688	0.757	0.807	0.893
60–69 years	286	0.536	0.130	0.355	0.386	0.408	0.445	0.512	0.615	0.671	0.725	0.797
70–79 years	274	0.483	0.133	0.297	0.338	0.365	0.394	0.453	0.564	0.609	0.652	0.745
80 years and over	191	0.425	0.126	0.235	0.292	0.310	0.341	0.402	0.492	0.523	0.588	0.675
20 years and over, age adjusted	1,928	0.674	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.688	0.129	0.496	0.525	0.555	0.586	0.685	0.766	0.831	0.858	0.905
12–15 years	226	0.878	0.164	0.644	0.681	0.711	0.756	0.859	0.981	1.035	1.081	1.161
16–19 years	206	0.932	0.165	0.662	0.716	0.752	0.815	0.909	1.041	1.124	1.159	1.217
20–29 years	136	0.905	0.186	0.589	0.648	0.718	0.779	0.88	1.044	1.1	1.128	1.24
30–39 years	140	0.81	0.16	0.562	0.578	0.655	0.698	0.801	0.92	0.99	1.042	1.089
40–49 years	160	0.765	0.162	0.524	0.562	0.599	0.643	0.751	0.883	0.945	0.985	1.032
50–59 years	134	0.669	0.166	0.43	0.473	0.49	0.53	0.647	0.769	0.847	0.905	0.94
60–69 years	141	0.601	0.195	0.35	0.379	0.414	0.468	0.571	0.683	0.788	0.822	†
70–79 years	66	*0.517	0.149	*0.278	*0.305	*0.364	*0.412	*0.498	*0.609	*0.655	*0.696	†
80 years and over	31	*0.433	0.183	†	†	*0.249	*0.341	*0.406	*0.514	†	†	†
20 years and over, age adjusted	808	0.732	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 21. Total lumbar spine (L1–L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	26.70	5.52	18.87	19.75	21.07	22.87	26.23	30.03	32.10	33.45	36.12
12–15 years	783	46.10	14.44	26.44	28.07	29.97	33.65	44.60	55.63	61.77	65.82	72.57
16–19 years	773	67.60	12.57	48.30	51.76	55.05	59.59	67.16	75.60	80.70	84.30	87.94
20–29 years	704	70.67	11.50	52.92	55.96	58.49	63.01	69.96	77.81	82.71	85.98	90.97
30–39 years	714	69.85	11.97	51.07	54.42	56.96	61.30	69.42	77.77	81.69	84.57	91.22
40–49 years	665	71.61	12.70	52.30	55.54	58.33	62.29	71.40	80.08	83.98	86.71	92.96
50–59 years	583	72.17	14.12	49.33	53.86	57.22	62.08	71.65	81.78	87.53	91.11	98.58
60–69 years	527	72.98	13.63	49.31	56.26	59.70	64.55	72.63	81.49	87.55	90.75	96.00
70–79 years	326	74.71	15.99	50.22	54.68	58.75	64.01	72.22	84.73	91.05	97.97	103.07
80 years and over	161	76.13	18.56	50.78	54.16	56.75	62.52	74.82	84.47	93.26	98.86	110.44
20 years and over, age adjusted	3,680	71.76	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	25.35	5.25	18.18	19.71	20.54	21.31	24.44	28.27	30.33	31.86	34.99
12–15 years	231	46.36	13.89	26.04	28.89	30.23	35.70	44.97	56.27	61.22	65.27	68.09
16–19 years	216	61.89	11.63	44.45	48.10	49.69	52.98	61.02	67.92	73.12	76.53	83.26
20–29 years	191	65.14	9.50	50.20	52.99	55.12	58.02	64.47	71.31	75.12	77.27	80.70
30–39 years	149	66.06	12.16	46.09	50.24	54.03	57.93	65.13	72.82	77.05	83.06	91.04
40–49 years	140	63.69	11.09	47.87	50.49	51.31	55.86	62.61	70.16	75.47	79.39	82.98
50–59 years	98	64.56	11.87	45.10	48.38	52.43	55.88	64.18	71.82	77.80	79.79	83.13
60–69 years	94	*68.40	14.78	*46.14	*49.13	*52.68	*58.72	*66.72	*75.26	*83.91	*87.81	*93.72
70–79 years	31	*64.55	14.33	†	†	*47.13	*48.46	*65.09	*77.82	*80.70	†	†
80 years and over	12	*66.63	13.10	†	†	†	*56.64	*61.63	*75.91	*78.92	†	†
20 years and over, age adjusted	715	65.29	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	26.97	5.54	18.60	19.45	20.89	23.34	26.49	30.56	32.30	33.45	35.47
12–15 years	220	46.22	14.46	26.81	28.10	29.57	33.51	45.65	55.15	62.23	65.75	72.71
16–19 years	225	68.27	12.59	48.53	51.83	56.51	60.22	67.92	75.93	80.72	84.60	87.90
20–29 years	281	71.51	10.93	53.50	57.84	60.04	64.23	70.55	79.10	82.99	85.99	90.88
30–39 years	329	70.92	11.74	51.47	55.38	58.19	62.61	70.75	78.80	82.66	85.40	91.23
40–49 years	300	72.77	12.41	53.82	56.45	59.53	63.20	73.19	81.25	84.95	87.15	94.80
50–59 years	305	72.80	13.87	49.39	53.96	58.58	62.39	72.61	82.31	88.14	91.44	98.64
60–69 years	228	73.92	12.77	52.87	57.88	61.33	65.41	73.80	81.83	87.52	90.49	95.88
70–79 years	208	74.87	16.17	50.60	54.67	58.87	64.17	71.99	84.76	91.53	98.10	103.18
80 years and over	126	77.05	18.95	52.26	54.92	57.05	64.06	75.10	86.72	94.17	100.50	†
20 years and over, age adjusted	1,777	72.64	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	27.89	5.51	20.05	22.07	22.90	24.06	27.03	30.70	32.60	34.52	37.02
12–15 years	231	46.31	13.98	26.43	29.60	32.32	35.41	44.42	55.26	60.64	65.40	69.97
16–19 years	255	68.89	12.48	49.21	52.88	55.65	60.17	67.49	78.11	82.78	84.13	90.37
20–29 years	157	73.66	13.75	54.05	58.23	60.78	63.99	71.82	79.26	86.79	92.24	95.24
30–39 years	139	72.61	12.43	53.27	56.69	58.04	63.34	72.43	80.68	86.10	89.51	92.74
40–49 years	140	73.81	12.78	55.64	59.26	61.91	65.45	73.38	81.38	84.92	89.21	97.27
50–59 years	108	76.59	15.70	54.32	56.96	60.43	64.03	73.60	86.36	91.88	97.74	102.71
60–69 years	139	75.66	15.99	52.46	57.73	59.78	62.81	74.82	83.96	92.02	97.93	102.70
70–79 years	62	*80.09	14.88	*57.94	*61.51	*65.23	*68.18	*77.89	*90.29	*97.25	100.32	102.21
80 years and over	13	*76.50	13.75	†	†	†	*61.79	*74.01	†	†	†	†
20 years and over, age adjusted	758	74.79	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	27.23	8.09	17.86	19.12	20.17	21.74	24.92	30.56	34.93	38.81	44.77
12–15 years	707	49.50	11.51	31.29	34.63	38.18	42.33	49.35	56.16	60.82	64.34	68.86
16–19 years	631	56.71	9.68	42.61	44.93	46.64	49.62	55.89	62.97	67.09	69.12	73.82
20–29 years	591	60.31	10.28	43.78	47.38	49.35	52.68	60.08	66.72	71.13	74.16	77.16
30–39 years	641	60.69	9.83	45.65	48.49	50.54	53.70	60.34	67.49	70.25	72.36	76.33
40–49 years	744	60.95	11.14	43.91	47.32	49.61	52.95	60.45	67.49	72.43	75.26	79.97
50–59 years	588	56.13	10.77	40.23	43.10	45.14	48.14	55.75	63.64	67.27	70.43	73.88
60–69 years	578	54.01	11.00	38.17	40.98	43.55	46.04	53.07	60.89	66.20	68.37	73.64
70–79 years	313	51.54	12.51	33.66	37.03	40.02	43.39	50.19	58.00	62.69	66.78	75.15
80 years and over	154	52.50	11.28	34.19	37.07	40.85	45.63	51.13	59.67	64.54	67.01	70.19
20 years and over, age adjusted	3,609	58.14	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 21. Total lumbar spine (L1–L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	26.26	7.91	16.65	17.98	18.77	20.17	24.74	29.82	33.42	35.53	41.18
12–15 years	228	46.81	9.03	32.00	34.90	37.74	40.49	47.26	51.44	55.29	59.84	61.55
16–19 years	178	52.72	8.85	39.53	41.89	43.00	46.00	52.79	57.96	60.90	63.31	65.26
20–29 years	144	55.29	9.08	41.97	43.91	46.08	49.15	53.47	61.00	65.11	67.21	69.15
30–39 years	149	57.54	10.67	39.95	44.46	45.59	50.75	56.98	64.33	68.54	70.55	73.28
40–49 years	136	57.31	9.11	42.53	45.78	47.69	50.61	56.18	63.26	65.63	68.92	72.52
50–59 years	99	*51.61	12.03	*34.63	*37.03	*40.01	*44.54	*50.82	*56.03	*60.70	*65.77	*71.26
60–69 years	126	*47.64	9.97	*33.03	*35.44	*36.79	*40.63	*47.04	*53.98	*58.12	*59.59	†
70–79 years	40	*43.21	9.88	†	*29.60	*31.74	*35.72	*43.67	*46.65	*53.76	*55.82	†
80 years and over	6	*43.62	18.94	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	700	53.31	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	26.99	7.54	18.59	19.63	20.56	21.96	24.60	29.74	33.92	37.83	43.76
12–15 years	178	49.93	11.93	31.46	34.16	37.94	42.14	49.41	56.42	61.36	65.36	70.96
16–19 years	172	57.33	9.37	44.04	45.79	47.49	50.19	56.64	63.42	67.37	69.27	73.76
20–29 years	236	61.48	9.73	47.02	49.34	51.56	54.30	60.88	67.50	71.71	74.65	78.15
30–39 years	258	61.56	9.41	46.85	49.46	52.13	54.34	61.59	68.33	70.11	73.07	77.16
40–49 years	348	61.40	10.88	44.50	48.11	50.48	53.34	61.17	67.93	72.51	75.31	79.48
50–59 years	281	57.01	10.61	40.68	43.94	45.18	48.44	57.24	64.07	68.00	70.48	74.15
60–69 years	245	54.38	10.91	39.13	41.41	43.81	46.37	53.07	61.20	66.75	68.72	73.26
70–79 years	197	51.94	12.68	33.83	37.37	40.61	43.38	50.40	58.22	63.11	67.02	75.42
80 years and over	117	52.49	10.56	34.40	37.51	42.29	45.68	51.27	59.53	63.49	66.08	68.91
20 years and over, age adjusted	1,682	58.85	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	30.02	9.21	18.48	20.39	21.20	23.36	27.67	35.45	39.49	42.31	47.61
12–15 years	225	51.98	10.33	34.90	37.53	40.80	44.97	52.16	58.65	62.37	67.09	68.21
16–19 years	202	59.20	9.91	44.99	46.62	48.59	52.31	57.70	65.44	69.01	72.01	†
20–29 years	127	62.25	11.50	43.34	46.70	50.45	55.06	62.47	69.92	74.18	76.48	80.54
30–39 years	142	63.17	10.16	48.62	51.19	53.44	56.05	62.35	69.96	72.38	75.04	78.91
40–49 years	164	63.79	12.64	46.14	49.07	50.97	55.49	61.93	71.23	75.99	79.48	84.72
50–59 years	131	57.84	10.58	40.45	45.96	47.47	49.99	56.60	63.95	70.22	72.41	74.99
60–69 years	139	57.93	11.59	39.14	43.38	46.10	49.95	57.31	64.25	68.76	73.99	78.20
70–79 years	52	*55.86	10.62	*41.61	*43.17	*44.92	*48.95	*55.67	*60.09	*64.20	*68.79	†
80 years and over	22	*54.47	16.33	†	†	*38.58	*44.99	*47.55	*66.06	*71.61	†	†
20 years and over, age adjusted	777	60.76	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 22. Lumbar spine vertebra 1 (L1) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	5.28	1.17	3.58	3.83	4.04	4.43	5.18	5.93	6.32	6.77	7.27
12–15 years	788	9.40	3.15	5.14	5.47	5.77	6.80	9.10	11.46	12.84	13.85	15.34
16–19 years	775	13.96	2.88	9.52	10.40	10.99	12.00	13.71	15.74	16.99	18.04	19.04
20–29 years	719	14.56	2.66	10.45	11.34	11.80	12.72	14.45	16.14	17.45	18.25	19.02
30–39 years	738	14.73	2.82	10.18	11.22	11.80	12.71	14.55	16.60	17.66	18.35	19.69
40–49 years	698	15.20	2.91	10.69	11.58	12.20	13.10	14.98	17.00	18.02	19.11	20.28
50–59 years	633	15.23	3.19	10.21	11.18	11.92	12.93	15.19	17.10	18.57	19.30	20.55
60–69 years	656	15.52	3.32	10.26	11.37	12.20	13.24	15.16	17.85	19.14	19.81	20.89
70–79 years	440	15.90	3.75	10.47	11.61	12.22	13.43	15.53	18.21	19.54	20.77	22.45
80 years and over	234	15.76	3.89	10.00	11.17	12.02	13.10	15.15	17.80	19.37	21.05	22.82
20 years and over, age adjusted	4,118	15.10	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	5.07	1.11	3.53	3.82	4.02	4.32	4.83	5.63	6.03	6.43	7.27
12–15 years	234	9.48	2.98	5.04	5.47	5.95	7.15	9.11	11.67	12.47	13.14	14.04
16–19 years	217	12.83	2.70	8.70	9.51	10.06	10.84	12.59	14.53	15.43	16.19	17.69
20–29 years	196	13.51	2.33	9.79	10.38	11.01	11.92	13.39	14.94	15.83	16.32	17.44
30–39 years	152	13.88	2.78	9.62	10.43	11.18	12.09	13.57	15.39	17.28	17.77	18.51
40–49 years	149	13.45	2.50	9.57	10.38	10.89	11.68	13.34	15.02	15.92	16.59	17.90
50–59 years	104	13.74	2.73	9.32	9.71	10.71	11.85	13.46	15.61	16.68	17.52	18.68
60–69 years	111	14.32	3.11	9.15	10.41	11.17	12.01	13.85	16.26	17.44	18.13	19.26
70–79 years	40	*13.52	3.33	†	*9.20	*9.54	*10.89	*13.02	*15.96	*16.48	*16.73	*17.56
80 years and over	13	*14.09	3.03	†	†	†	*11.86	*13.28	*15.45	*15.87	†	†
20 years and over, age adjusted	765	13.72	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	5.34	1.18	3.54	3.75	4.00	4.51	5.27	5.97	6.53	6.82	7.25
12–15 years	221	9.47	3.19	5.18	5.49	5.75	6.58	9.20	11.46	12.95	14.27	15.50
16–19 years	225	14.11	2.90	9.62	10.40	11.08	12.11	13.80	15.81	17.45	18.09	19.12
20–29 years	283	14.73	2.55	10.66	11.42	12.42	12.98	14.64	16.38	17.57	18.23	18.87
30–39 years	343	15.00	2.74	10.46	11.46	12.14	13.07	14.86	16.68	17.83	18.65	19.67
40–49 years	318	15.50	2.91	11.10	11.86	12.58	13.35	15.36	17.18	18.46	19.46	20.59
50–59 years	327	15.38	3.10	10.39	11.42	12.27	13.03	15.34	17.27	18.70	19.39	20.55
60–69 years	284	15.83	3.22	11.12	11.90	12.59	13.56	15.50	18.04	19.30	20.08	20.97
70–79 years	288	16.07	3.82	10.62	11.66	12.27	13.55	15.59	18.47	19.79	21.07	22.64
80 years and over	186	15.90	3.98	10.31	11.27	12.25	13.17	15.07	18.04	20.47	21.21	22.90
20 years and over, age adjusted	2,029	15.33	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	199	5.39	1.23	3.79	4.09	4.27	4.66	5.27	5.95	6.34	6.67	7.15
12–15 years	232	9.28	3.04	5.08	5.78	6.13	6.98	8.91	11.20	12.38	13.22	14.52
16–19 years	256	14.03	2.79	9.49	10.60	11.45	12.08	13.82	15.85	17.02	17.81	19.10
20–29 years	163	15.16	3.19	10.67	11.36	12.06	12.99	14.82	16.69	18.53	19.33	20.80
30–39 years	145	15.11	3.08	10.03	11.31	12.02	12.59	14.98	17.06	18.10	19.18	20.10
40–49 years	145	15.31	2.80	11.31	11.83	12.47	13.35	14.90	17.23	18.12	18.88	19.79
50–59 years	121	15.98	3.77	10.91	11.63	12.26	12.99	15.54	18.17	19.99	20.94	22.58
60–69 years	182	15.46	3.72	9.55	10.67	11.74	12.79	15.24	17.56	19.55	20.53	21.25
70–79 years	79	*15.97	3.26	*10.77	*12.42	*12.84	*13.73	*15.39	*18.11	*19.83	*20.54	*21.77
80 years and over	22	*15.67	2.86	†	†	*11.53	*12.90	*15.75	*17.83	*18.66	†	†
20 years and over, age adjusted	857	15.43	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	747	5.21	1.64	3.32	3.63	3.83	4.13	4.77	5.83	6.69	7.64	8.63
12–15 years	717	9.74	2.49	5.79	6.50	7.28	8.00	9.55	11.22	12.17	13.06	14.32
16–19 years	678	10.97	2.13	7.68	8.25	8.84	9.56	10.67	12.39	13.02	13.72	14.71
20–29 years	636	11.63	2.26	8.14	8.69	9.22	10.05	11.61	12.98	13.97	14.56	15.42
30–39 years	654	11.70	2.28	8.19	9.09	9.48	10.07	11.55	13.21	14.09	14.41	15.41
40–49 years	783	11.84	2.49	8.10	8.81	9.33	10.11	11.69	13.34	14.29	15.04	16.02
50–59 years	630	10.81	2.44	7.26	7.73	8.23	9.07	10.68	12.41	13.41	13.90	15.13
60–69 years	677	10.26	2.41	6.84	7.48	7.74	8.50	10.02	11.86	12.84	13.55	14.70
70–79 years	429	9.79	2.76	6.30	6.88	7.15	7.91	9.35	11.03	12.12	13.08	15.24
80 years and over	235	9.86	2.66	6.08	6.74	7.01	8.04	9.59	11.28	12.42	13.27	14.96
20 years and over, age adjusted	4,044	11.19	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 22. Lumbar spine vertebra 1 (L1) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	5.01	1.62	3.23	3.39	3.56	3.91	4.59	5.76	6.47	6.95	8.10
12–15 years	231	9.06	1.91	5.83	6.70	7.16	7.84	9.01	10.22	10.98	11.61	12.30
16–19 years	187	10.10	1.91	7.37	7.68	7.85	8.50	10.17	11.29	11.96	12.47	12.95
20–29 years	149	10.80	2.10	7.32	8.01	8.58	9.49	10.53	12.29	13.01	13.54	14.53
30–39 years	149	11.12	2.35	7.29	8.31	8.64	9.36	11.11	12.46	13.77	14.10	14.42
40–49 years	141	11.28	2.05	7.92	8.69	9.05	9.75	11.21	12.70	13.31	13.80	14.56
50–59 years	107	*10.14	2.64	*6.51	*6.81	*7.59	*8.65	*9.78	*11.26	*12.02	*13.50	*14.60
60–69 years	138	*9.24	2.28	*6.00	*6.40	*7.01	*7.68	*8.76	*10.55	*11.40	*11.89	*12.93
70–79 years	49	*8.29	2.17	†	*5.99	*6.15	*6.50	*7.99	*9.21	*10.61	*12.03	†
80 years and over	11	*8.22	3.43	†	†	†	†	*6.54	*8.94	†	†	†
20 years and over, age adjusted	744	10.38	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	5.20	1.56	3.38	3.72	3.93	4.17	4.77	5.65	6.49	7.43	8.41
12–15 years	184	9.91	2.62	5.58	6.47	7.35	7.99	9.73	11.51	12.51	13.25	14.88
16–19 years	196	11.09	2.03	7.95	8.75	8.99	9.77	10.81	12.50	12.96	13.71	14.07
20–29 years	258	11.88	2.14	8.66	9.08	9.81	10.26	11.77	13.08	13.99	14.71	15.47
30–39 years	267	11.90	2.26	8.30	9.35	9.64	10.17	11.73	13.41	14.25	14.57	15.63
40–49 years	366	11.95	2.47	8.22	8.99	9.52	10.18	11.79	13.45	14.36	15.17	16.15
50–59 years	300	11.01	2.44	7.36	7.80	8.36	9.32	10.93	12.55	13.46	14.02	15.18
60–69 years	291	10.33	2.43	6.91	7.50	7.81	8.57	10.08	11.96	12.95	13.55	14.84
70–79 years	271	9.84	2.81	6.33	6.90	7.16	7.94	9.37	11.04	12.10	13.23	15.58
80 years and over	179	9.89	2.63	6.09	6.80	7.14	8.11	9.63	11.28	12.34	12.87	14.98
20 years and over, age adjusted	1,932	11.34	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	5.66	1.87	3.40	3.75	3.95	4.35	5.25	6.60	7.58	8.16	9.66
12–15 years	226	10.02	2.29	6.16	7.12	7.60	8.46	10.05	11.48	12.38	13.16	14.24
16–19 years	212	11.31	2.34	7.84	8.30	8.85	9.72	11.16	12.64	13.56	14.28	15.23
20–29 years	139	11.77	2.47	7.71	8.43	9.27	10.17	11.74	13.21	14.31	14.66	†
30–39 years	146	11.94	2.30	8.81	9.30	9.68	10.14	11.72	13.24	14.06	14.60	15.46
40–49 years	172	12.20	2.80	7.89	8.90	9.31	10.25	11.95	13.88	15.14	15.61	†
50–59 years	143	10.96	2.33	7.33	8.12	8.45	9.25	10.90	12.54	13.36	13.96	14.93
60–69 years	170	10.83	2.36	7.28	8.00	8.37	9.05	10.76	12.18	13.21	14.20	15.06
70–79 years	76	*10.42	2.49	*6.82	*7.53	*8.03	*8.72	*9.89	*11.79	*12.66	*13.41	*14.33
80 years and over	31	*10.02	2.67	†	*6.71	*7.08	*8.16	*9.33	*11.77	*13.42	*13.48	†
20 years and over, age adjusted	877	11.48	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 23. Lumbar spine vertebra 2 (L2) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	6.18	1.33	4.29	4.54	4.82	5.24	5.98	6.89	7.51	7.82	8.52
12–15 years	789	10.89	3.50	6.10	6.59	7.05	7.99	10.43	13.26	14.82	15.62	17.29
16–19 years	776	16.04	3.10	11.12	12.07	12.99	14.02	15.82	17.94	19.36	20.37	21.15
20–29 years	724	16.89	2.82	12.44	13.17	13.95	14.96	16.81	18.56	19.91	20.58	21.63
30–39 years	749	16.96	3.03	12.26	13.13	13.65	14.94	16.85	18.97	19.97	20.96	22.29
40–49 years	717	17.22	3.21	12.41	13.13	13.77	14.83	17.02	19.37	20.69	21.33	22.96
50–59 years	656	17.35	3.53	11.96	12.88	13.61	14.72	17.23	19.58	20.90	21.75	23.65
60–69 years	658	17.74	3.53	11.92	13.37	14.45	15.45	17.49	19.85	21.63	22.57	23.58
70–79 years	443	17.93	4.15	11.37	13.18	13.86	14.96	17.40	20.58	21.90	23.36	25.43
80 years and over	227	18.02	4.54	12.01	13.00	13.59	14.73	17.42	20.36	22.25	23.42	25.33
20 years and over, age adjusted	4,174	17.27	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	5.84	1.29	4.07	4.38	4.60	4.92	5.67	6.54	7.03	7.49	8.36
12–15 years	235	10.90	3.39	5.83	6.59	7.06	8.44	10.53	13.33	14.64	15.51	16.40
16–19 years	216	14.82	2.98	10.33	11.42	11.71	12.67	14.56	16.43	17.67	18.61	20.03
20–29 years	198	15.63	2.34	11.58	12.57	12.91	13.93	15.65	17.22	17.83	18.62	19.20
30–39 years	156	16.01	3.04	11.48	11.96	12.89	13.90	15.67	17.45	19.12	20.22	22.06
40–49 years	152	15.35	2.78	11.57	11.81	12.47	13.00	15.09	17.46	18.27	18.86	19.53
50–59 years	106	15.66	2.97	10.65	11.91	12.70	13.82	15.33	17.38	18.93	19.18	20.87
60–69 years	111	16.34	3.63	11.33	11.78	12.20	13.80	15.75	18.34	19.64	21.95	22.68
70–79 years	42	*15.67	4.10	*10.16	*10.65	*10.96	*11.28	*15.47	*18.29	*19.92	*20.43	†
80 years and over	13	*16.17	3.27	†	†	†	*12.83	*14.98	*18.10	*18.96	†	†
20 years and over, age adjusted	778	15.76	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	207	6.26	1.33	4.32	4.54	4.80	5.34	6.13	6.92	7.57	7.81	8.34
12–15 years	221	10.95	3.52	6.23	6.64	6.96	7.96	10.64	13.11	14.85	15.62	17.07
16–19 years	226	16.21	3.09	11.09	12.27	13.32	14.25	15.94	17.93	19.67	20.49	21.15
20–29 years	287	17.11	2.66	12.70	13.90	14.24	15.15	17.03	18.84	20.08	20.50	21.59
30–39 years	345	17.32	3.01	12.43	13.46	14.42	15.35	17.27	19.28	20.16	21.20	22.63
40–49 years	327	17.51	3.18	12.82	13.41	14.01	15.09	17.47	19.62	20.86	21.62	23.15
50–59 years	336	17.50	3.47	12.22	13.22	13.75	14.96	17.39	19.69	20.94	21.86	23.65
60–69 years	289	18.04	3.34	12.32	13.93	14.76	15.96	17.79	20.24	21.74	22.74	23.58
70–79 years	291	18.00	4.22	11.50	13.22	13.86	15.00	17.41	20.73	22.08	23.48	25.55
80 years and over	179	18.18	4.64	12.21	13.08	13.60	14.85	17.61	20.67	22.43	24.40	25.87
20 years and over, age adjusted	2,054	17.52	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	6.46	1.33	4.67	5.00	5.18	5.58	6.25	7.23	7.65	7.99	8.67
12–15 years	231	10.83	3.29	6.19	7.04	7.50	8.39	10.44	13.12	14.16	15.23	16.30
16–19 years	257	16.21	3.05	11.49	12.56	13.02	14.05	15.80	18.59	19.50	20.29	21.91
20–29 years	162	17.57	3.31	12.75	13.81	14.51	15.48	17.27	19.19	21.04	22.03	22.85
30–39 years	147	17.40	3.11	12.60	13.40	13.87	15.07	17.33	19.29	20.61	21.27	22.83
40–49 years	152	17.45	3.20	12.67	13.59	14.29	15.25	17.07	19.38	20.07	21.45	†
50–59 years	126	18.40	3.97	12.31	13.34	14.44	15.46	17.87	20.82	22.59	23.75	24.99
60–69 years	184	18.23	4.21	11.91	13.17	13.99	15.55	17.90	20.76	22.55	23.74	25.47
70–79 years	77	*18.83	3.64	*12.91	*14.44	*15.00	*16.28	*18.03	*21.87	*23.01	*23.80	*24.33
80 years and over	21	*18.85	3.55	†	†	*14.02	*15.26	*19.29	*21.31	*22.22	†	†
20 years and over, age adjusted	869	17.87	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	747	6.32	1.93	4.07	4.44	4.64	5.03	5.80	7.10	8.20	8.99	10.57
12–15 years	718	11.69	2.81	7.23	8.04	8.91	9.75	11.56	13.37	14.48	14.99	16.39
16–19 years	679	13.26	2.43	9.71	10.33	10.71	11.55	13.07	14.83	15.70	16.27	17.70
20–29 years	641	14.15	2.57	10.10	10.81	11.44	12.29	14.11	15.73	16.79	17.52	18.55
30–39 years	662	14.26	2.50	10.34	11.18	11.78	12.47	14.14	15.85	16.92	17.47	18.41
40–49 years	783	14.43	2.77	10.29	10.99	11.61	12.49	14.27	16.22	17.21	17.93	19.12
50–59 years	644	13.16	2.74	9.30	9.86	10.34	11.16	12.87	15.00	16.10	16.73	17.60
60–69 years	681	12.68	2.82	8.71	9.34	9.94	10.62	12.35	14.58	15.51	16.35	17.84
70–79 years	420	12.04	3.02	7.71	8.49	9.04	10.20	11.80	13.51	14.66	15.52	17.70
80 years and over	213	12.04	3.04	7.44	8.35	8.74	9.82	11.63	13.88	15.27	15.94	17.24
20 years and over, age adjusted	4,044	13.66	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 23. Lumbar spine vertebra 2 (L2) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	6.08	1.90	3.83	4.08	4.26	4.64	5.69	7.00	7.74	8.42	9.81
12–15 years	231	10.88	2.16	7.58	8.20	8.68	9.48	10.80	11.92	13.11	14.05	14.66
16–19 years	187	12.34	2.22	9.14	9.62	9.89	10.67	12.16	13.74	14.51	15.00	15.87
20–29 years	150	13.07	2.33	9.52	10.07	10.47	11.55	12.85	14.56	15.42	16.20	16.82
30–39 years	149	13.59	2.52	9.61	10.15	10.71	11.93	13.50	15.30	16.01	16.77	17.30
40–49 years	142	13.63	2.28	9.78	10.60	11.28	12.04	13.73	15.16	15.91	16.51	17.51
50–59 years	107	12.16	2.89	7.63	8.36	9.10	10.53	11.96	13.49	14.41	15.04	16.68
60–69 years	145	*11.03	2.44	*7.52	*8.07	*8.35	*9.30	*10.77	*12.17	*13.75	*14.32	*15.01
70–79 years	52	*10.28	2.96	*6.17	*6.52	*6.94	*8.31	*9.83	*10.98	*13.23	*13.97	†
80 years and over	8	*10.28	4.12	†	†	†	†	*9.95	†	†	†	†
20 years and over, age adjusted	753	12.59	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	6.27	1.79	4.27	4.56	4.70	5.08	5.72	6.98	7.85	8.90	10.09
12–15 years	184	11.85	2.96	7.02	7.86	8.95	9.73	11.74	13.75	14.66	15.29	17.57
16–19 years	197	13.34	2.34	9.91	10.41	10.81	11.59	13.23	14.97	15.66	16.27	16.91
20–29 years	261	14.43	2.51	10.48	11.40	11.83	12.54	14.30	15.89	17.01	17.85	18.86
30–39 years	272	14.48	2.48	10.55	11.33	11.95	12.69	14.41	16.20	17.12	17.61	18.66
40–49 years	365	14.55	2.73	10.45	11.19	11.79	12.66	14.38	16.40	17.29	17.96	19.11
50–59 years	305	13.34	2.71	9.44	9.88	10.45	11.29	13.14	15.11	16.19	16.78	17.61
60–69 years	287	12.78	2.83	8.78	9.47	9.95	10.66	12.39	14.63	15.55	16.39	17.90
70–79 years	257	12.13	3.01	7.89	8.56	9.23	10.27	11.89	13.58	14.69	15.52	17.75
80 years and over	158	12.06	2.95	7.49	8.37	8.77	9.92	11.69	13.88	14.88	15.55	16.69
20 years and over, age adjusted	1,905	13.83	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	6.97	2.20	4.25	4.66	4.88	5.45	6.38	8.11	9.16	9.95	11.26
12–15 years	227	12.15	2.56	7.81	8.61	9.12	10.44	12.24	13.66	14.84	15.63	16.31
16–19 years	212	13.84	2.59	9.97	10.79	11.33	12.19	13.34	15.39	16.16	16.92	†
20–29 years	139	14.47	2.60	10.12	10.98	11.35	12.49	14.44	16.22	17.10	17.77	18.87
30–39 years	148	14.77	2.49	11.44	11.79	12.36	12.80	14.57	16.33	17.11	17.89	18.37
40–49 years	172	15.07	3.12	10.47	11.44	11.94	12.88	14.60	17.13	18.18	18.96	20.31
50–59 years	152	13.51	2.76	9.26	10.25	10.80	11.61	13.30	15.16	16.25	16.98	18.40
60–69 years	170	13.52	2.78	8.94	9.97	10.74	11.51	13.34	15.16	16.51	17.25	18.31
70–79 years	74	*13.06	2.81	*8.94	*9.92	*10.27	*11.20	*12.82	*14.40	*15.27	*16.22	*18.99
80 years and over	33	*12.44	3.70	†	*8.42	*8.88	*9.89	*11.26	*15.20	*16.44	*17.70	†
20 years and over, age adjusted	888	14.21	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 24. Lumbar spine vertebra 3 (L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	716	7.11	1.50	4.93	5.23	5.52	6.06	6.98	7.98	8.60	9.02	9.70
12–15 years	789	12.22	3.84	7.06	7.47	7.91	9.05	11.78	14.85	16.32	17.24	19.07
16–19 years	777	17.88	3.31	12.68	13.64	14.55	15.67	17.70	19.83	21.29	22.42	23.32
20–29 years	724	18.71	3.13	13.75	14.74	15.47	16.48	18.51	20.79	21.95	22.85	23.83
30–39 years	743	18.33	3.36	13.25	14.12	14.59	15.81	18.26	20.44	21.74	22.70	24.31
40–49 years	719	18.61	3.38	13.33	14.37	14.98	16.25	18.65	20.69	22.00	22.97	24.50
50–59 years	639	18.74	3.87	12.61	13.76	14.72	16.08	18.52	21.46	22.88	23.72	25.46
60–69 years	630	19.33	3.77	13.38	14.80	15.62	16.83	18.93	21.66	23.20	24.39	25.58
70–79 years	412	19.70	4.33	13.31	14.53	15.50	16.63	19.00	22.18	24.64	26.04	27.52
80 years and over	215	19.68	4.96	12.87	14.08	14.85	16.02	19.17	21.86	24.36	25.52	28.93
20 years and over, age adjusted	4,082	18.80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	6.71	1.46	4.65	5.20	5.30	5.54	6.47	7.61	8.08	8.44	9.41
12–15 years	234	12.31	3.67	6.90	7.55	8.02	9.57	11.92	15.03	16.36	17.20	18.37
16–19 years	217	16.32	2.97	11.91	12.87	13.26	14.07	16.23	18.00	18.90	19.78	21.87
20–29 years	199	17.20	2.61	13.28	14.04	14.67	15.33	16.75	18.98	20.14	20.60	21.78
30–39 years	156	17.08	3.20	12.09	13.10	13.86	14.68	17.09	18.79	20.09	21.31	22.77
40–49 years	155	16.46	3.11	11.73	12.80	13.35	14.07	16.02	18.49	19.86	20.68	22.19
50–59 years	105	16.92	3.30	11.62	12.13	13.49	14.88	16.74	19.31	20.08	20.95	22.66
60–69 years	111	*17.86	3.90	*11.95	*12.42	*13.75	*15.37	*17.27	*19.68	*21.71	*23.01	*24.81
70–79 years	38	*16.85	3.70	†	*12.02	*12.10	*12.70	*17.31	*19.54	*20.98	*21.80	†
80 years and over	13	*16.54	3.67	†	†	†	*13.56	*14.58	*19.53	*19.81	†	†
20 years and over, age adjusted	777	16.98	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	208	7.18	1.50	4.91	5.23	5.54	6.18	7.02	8.07	8.71	9.02	9.63
12–15 years	221	12.23	3.84	7.07	7.44	7.83	9.00	11.87	14.97	16.32	17.10	18.99
16–19 years	226	18.05	3.32	12.67	13.88	14.75	15.98	17.88	19.94	21.54	22.45	23.26
20–29 years	286	18.93	2.96	13.77	15.10	15.82	16.90	18.78	20.89	21.99	22.95	23.80
30–39 years	341	18.67	3.34	13.35	14.31	15.26	16.22	18.37	20.90	21.97	23.20	24.56
40–49 years	327	18.92	3.26	13.99	14.85	15.37	16.48	18.92	20.77	22.19	23.11	24.78
50–59 years	327	18.86	3.71	12.81	14.24	15.16	16.23	18.80	21.54	22.93	23.72	25.23
60–69 years	276	19.62	3.56	13.90	15.05	15.93	17.21	19.34	21.89	23.20	24.40	25.58
70–79 years	273	19.75	4.35	13.34	14.53	15.51	16.64	18.97	22.21	25.04	26.10	27.47
80 years and over	169	19.84	5.02	13.06	14.34	14.99	16.25	19.12	22.27	24.50	25.63	29.27
20 years and over, age adjusted	1,999	19.04	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	198	7.42	1.51	5.33	5.71	6.00	6.30	7.25	8.22	8.79	9.38	10.10
12–15 years	232	12.32	3.73	6.96	7.90	8.66	9.45	11.79	14.92	16.28	17.07	18.58
16–19 years	257	18.27	3.32	13.34	14.24	14.89	15.97	17.76	20.56	22.06	22.56	24.19
20–29 years	163	19.64	3.74	14.41	15.32	16.08	17.09	19.08	21.38	23.27	24.30	26.26
30–39 years	146	19.23	3.37	13.92	14.38	15.42	16.93	18.85	21.59	22.79	23.85	24.97
40–49 years	151	19.45	3.50	13.92	15.59	16.39	17.12	19.25	21.73	22.95	23.99	25.48
50–59 years	121	20.59	4.49	14.07	15.14	15.86	17.22	20.57	23.03	24.74	26.93	29.01
60–69 years	170	19.98	4.33	13.72	14.98	15.61	16.74	19.54	22.35	24.40	25.57	27.59
70–79 years	71	*21.24	4.36	*14.95	*15.91	*17.07	*17.86	*20.50	*24.00	*25.32	*27.71	*28.87
80 years and over	19	*21.02	4.26	†	†	†	*15.95	*20.87	*24.43	†	†	†
20 years and over, age adjusted	841	19.89	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	745	7.30	2.20	4.68	5.08	5.31	5.79	6.66	8.28	9.58	10.20	11.97
12–15 years	715	13.36	3.06	8.44	9.41	10.16	11.37	13.30	15.18	16.27	17.33	18.73
16–19 years	663	15.26	2.65	11.39	11.89	12.46	13.35	15.10	16.90	18.12	18.71	19.78
20–29 years	629	16.29	2.71	12.01	12.62	13.34	14.46	16.15	18.19	19.15	19.88	20.92
30–39 years	664	16.36	2.67	12.16	13.01	13.62	14.49	16.10	18.09	19.08	19.67	20.56
40–49 years	790	16.49	2.98	11.87	12.82	13.32	14.33	16.22	18.47	19.51	20.52	21.93
50–59 years	641	15.21	2.93	10.55	11.70	12.29	13.05	15.08	17.01	17.95	18.84	20.25
60–69 years	663	14.65	3.13	10.03	11.14	11.69	12.55	14.18	16.34	17.92	18.87	20.40
70–79 years	402	14.04	3.29	9.15	10.02	10.66	11.82	13.89	15.91	17.42	18.15	19.88
80 years and over	207	14.03	3.21	8.76	9.94	10.85	12.03	13.74	15.91	17.54	18.36	19.19
20 years and over, age adjusted	3,996	15.72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 24. Lumbar spine vertebra 3 (L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	7.02	2.14	4.41	4.75	4.96	5.35	6.61	8.07	9.03	9.49	11.36
12–15 years	231	12.64	2.47	8.67	9.63	10.03	10.80	12.78	13.93	15.20	15.83	16.42
16–19 years	184	14.26	2.42	10.59	11.33	11.79	12.40	14.45	15.71	16.32	16.73	17.70
20–29 years	149	14.82	2.31	11.30	11.94	12.36	13.03	14.72	16.37	16.96	17.74	18.72
30–39 years	149	15.53	2.97	11.03	11.73	12.56	13.61	15.40	17.12	18.48	19.08	20.06
40–49 years	141	15.36	2.30	11.87	12.31	12.95	13.65	15.14	16.88	17.67	18.18	19.24
50–59 years	112	13.81	3.10	9.67	10.15	10.83	11.67	13.60	14.97	16.73	17.26	19.07
60–69 years	147	12.74	2.76	8.49	9.46	9.81	10.64	12.49	14.60	15.56	16.36	17.23
70–79 years	53	*12.03	3.05	†	*8.42	*8.93	*9.81	*11.59	*13.53	*14.79	*15.31	†
80 years and over	10	*10.74	3.65	†	†	†	†	*9.03	*11.49	†	†	†
20 years and over, age adjusted	761	14.30	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	7.23	2.05	4.90	5.19	5.35	5.92	6.60	8.07	9.29	10.04	11.57
12–15 years	181	13.43	3.17	8.07	9.34	10.00	11.34	13.30	15.19	16.43	17.33	18.98
16–19 years	189	15.34	2.58	11.59	11.98	12.64	13.39	15.16	17.08	18.19	18.77	19.78
20–29 years	259	16.54	2.55	12.54	13.26	13.93	14.71	16.26	18.26	19.17	19.86	21.00
30–39 years	273	16.53	2.54	12.48	13.47	13.85	14.68	16.34	18.12	19.18	19.69	20.43
40–49 years	371	16.59	2.88	11.95	13.07	13.51	14.58	16.36	18.50	19.48	20.41	21.48
50–59 years	299	15.43	2.89	10.87	11.92	12.46	13.22	15.45	17.09	18.01	18.73	20.36
60–69 years	281	14.76	3.09	10.29	11.44	11.88	12.68	14.19	16.41	18.03	18.90	20.46
70–79 years	244	14.14	3.30	9.46	10.13	10.66	11.81	14.04	15.99	17.44	18.28	19.87
80 years and over	154	14.15	3.08	8.94	9.97	11.29	12.16	13.88	16.14	17.58	18.35	19.01
20 years and over, age adjusted	1,881	15.88	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	8.05	2.52	4.98	5.31	5.56	6.11	7.56	9.45	10.61	11.59	13.19
12–15 years	227	14.11	2.86	9.19	10.31	10.95	12.39	14.07	15.82	17.25	17.91	18.88
16–19 years	208	16.02	2.81	11.94	12.44	13.04	14.16	15.63	17.86	18.92	19.30	†
20–29 years	133	17.12	2.98	12.03	12.72	13.43	15.32	17.07	19.37	20.36	20.73	21.48
30–39 years	148	17.24	2.69	12.79	14.21	14.76	15.32	16.91	18.87	19.65	20.77	21.52
40–49 years	174	17.39	3.48	12.15	12.83	13.73	14.84	17.18	19.61	20.77	21.93	22.78
50–59 years	148	15.63	2.96	11.18	11.70	12.67	13.53	15.30	17.49	19.06	19.76	20.52
60–69 years	157	15.84	3.25	10.98	11.54	12.21	13.81	15.66	17.74	19.02	19.99	20.82
70–79 years	71	*15.20	2.94	*11.34	*11.84	*12.41	*12.92	*14.65	*17.07	*17.86	*18.60	*20.83
80 years and over	28	*14.41	4.48	†	†	†	*11.80	*12.77	*15.00	*18.98	*20.95	†
20 years and over, age adjusted	859	16.56	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 25. Lumbar spine vertebra 4 (L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	716	8.11	1.64	5.63	6.10	6.45	6.90	7.91	9.17	9.77	10.15	10.88
12–15 years	789	13.57	4.08	8.01	8.56	9.10	10.14	13.03	16.13	18.07	19.12	20.79
16–19 years	776	19.69	3.63	14.16	15.10	15.96	17.23	19.52	21.92	23.62	24.33	25.83
20–29 years	718	20.54	3.50	14.97	16.22	16.96	18.15	20.36	22.76	24.04	25.26	26.53
30–39 years	736	20.03	3.54	14.36	15.66	16.34	17.38	19.98	22.30	23.43	24.39	25.87
40–49 years	706	20.46	3.84	14.62	15.73	16.40	17.81	20.26	23.10	24.28	25.25	27.05
50–59 years	635	20.91	4.22	14.37	15.20	16.58	17.90	20.84	23.68	25.66	26.52	28.05
60–69 years	598	21.63	4.31	14.36	15.98	17.10	18.76	21.39	24.49	26.12	27.22	29.06
70–79 years	403	22.05	4.82	14.90	15.98	17.32	18.48	21.57	25.26	27.37	29.12	30.38
80 years and over	200	22.38	5.67	14.49	15.93	16.66	17.91	21.76	25.48	27.84	29.99	32.31
20 years and over, age adjusted	3,996	20.79	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	7.68	1.55	5.68	5.97	6.16	6.55	7.39	8.47	9.22	9.97	10.41
12–15 years	235	13.69	4.02	8.13	8.86	9.48	10.42	13.23	16.36	18.00	19.11	20.93
16–19 years	217	17.87	3.31	13.19	14.01	14.61	15.41	17.54	19.58	21.30	22.05	24.12
20–29 years	198	18.77	2.79	14.96	15.62	16.12	16.86	18.10	20.44	21.98	22.75	23.73
30–39 years	153	18.98	3.58	12.92	14.57	15.61	16.50	18.78	21.19	22.02	24.04	25.64
40–49 years	151	18.14	3.49	13.25	14.05	14.55	15.72	17.66	19.93	21.11	23.25	24.68
50–59 years	106	18.75	3.58	13.34	14.05	14.45	15.98	18.60	21.25	22.48	23.62	24.73
60–69 years	104	*20.03	4.54	*13.24	*14.34	*15.26	*17.06	*19.31	*21.83	*26.07	*26.94	*28.29
70–79 years	43	*19.39	4.14	†	*13.94	*14.36	*15.39	*19.08	*21.86	*23.92	*25.07	*26.01
80 years and over	12	*19.10	3.92	†	†	†	*16.61	*18.21	*21.95	†	†	†
20 years and over, age adjusted	767	18.87	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	208	8.18	1.65	5.59	6.06	6.47	6.96	8.06	9.27	9.79	10.10	10.83
12–15 years	220	13.53	4.03	8.17	8.54	9.05	10.02	13.01	16.05	17.94	18.99	20.59
16–19 years	226	19.87	3.63	14.34	15.29	16.17	17.59	19.69	22.12	23.62	24.29	25.97
20–29 years	286	20.81	3.35	14.94	16.46	17.48	18.51	20.66	23.00	24.06	25.27	26.47
30–39 years	336	20.27	3.47	14.68	15.78	16.47	17.57	20.23	22.58	23.40	24.44	25.86
40–49 years	320	20.76	3.68	15.16	16.08	16.85	18.15	20.47	23.33	24.35	25.16	26.78
50–59 years	326	21.06	4.15	14.26	15.18	16.86	18.14	21.12	23.86	25.81	26.52	27.74
60–69 years	268	21.83	4.09	15.41	16.27	17.40	19.14	21.74	24.55	26.06	26.95	29.00
70–79 years	265	22.04	4.80	15.05	16.16	17.32	18.46	21.56	25.19	27.25	29.10	30.23
80 years and over	161	22.57	5.76	14.69	15.95	16.68	17.91	21.82	25.80	28.01	30.58	†
20 years and over, age adjusted	1,962	21.01	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	8.57	1.62	6.43	6.77	7.04	7.44	8.37	9.35	10.26	10.71	11.19
12–15 years	232	13.92	4.06	8.19	9.27	9.82	10.84	13.32	16.44	18.27	19.44	20.40
16–19 years	256	20.29	3.65	14.44	15.75	16.77	17.66	19.95	23.26	24.18	24.99	27.06
20–29 years	158	21.66	4.02	16.31	17.46	18.05	19.06	20.75	24.09	25.65	26.71	28.37
30–39 years	147	21.17	3.78	15.35	16.47	17.15	18.24	21.00	23.69	24.86	26.05	27.02
40–49 years	148	21.33	3.93	15.04	17.26	17.80	18.99	21.20	23.12	25.19	25.91	28.25
50–59 years	118	22.65	4.55	16.57	17.21	17.70	19.39	21.95	25.48	27.51	28.61	31.08
60–69 years	154	23.00	4.98	15.86	16.97	17.92	19.00	22.46	25.98	28.19	29.55	32.32
70–79 years	67	*24.41	4.89	*16.47	*18.05	*19.03	*20.55	*24.51	*27.85	*29.91	*30.48	*31.52
80 years and over	15	*23.83	4.37	†	†	†	*20.19	*21.95	*25.12	†	†	†
20 years and over, age adjusted	807	22.10	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	742	8.35	2.41	5.55	5.88	6.23	6.68	7.62	9.48	10.56	11.89	13.48
12–15 years	709	14.97	3.34	9.48	10.65	11.67	12.80	14.91	17.06	18.29	19.42	20.68
16–19 years	636	17.17	2.88	12.86	13.48	14.22	15.10	16.86	19.01	20.32	21.06	22.30
20–29 years	604	18.13	3.03	13.64	14.61	15.03	15.91	17.85	20.09	21.39	22.17	23.64
30–39 years	659	18.28	2.95	13.53	14.65	15.47	16.35	18.12	20.24	21.23	21.96	23.08
40–49 years	767	18.36	3.40	12.97	14.45	15.09	16.07	18.04	20.31	21.78	22.76	24.35
50–59 years	626	17.13	3.30	11.88	12.95	13.49	14.81	16.99	19.45	20.58	21.33	22.68
60–69 years	644	16.75	3.48	11.79	12.52	13.12	14.24	16.40	18.90	20.51	21.47	22.50
70–79 years	372	16.19	3.98	10.68	11.61	12.28	13.42	15.49	18.40	20.00	21.84	23.26
80 years and over	193	16.34	3.83	9.86	11.56	12.29	13.92	15.99	18.82	20.27	21.33	22.34
20 years and over, age adjusted	3,865	17.67	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 25. Lumbar spine vertebra 4 (L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	8.11	2.33	5.06	5.54	5.88	6.38	7.62	9.36	10.34	10.74	13.04
12–15 years	228	14.31	2.67	9.98	10.68	11.30	12.64	14.39	16.05	17.20	17.66	18.41
16–19 years	178	15.98	2.54	12.22	12.79	13.20	14.17	15.98	17.65	18.36	19.08	19.78
20–29 years	146	16.56	2.77	12.70	13.22	13.94	14.62	16.18	18.17	19.71	20.20	†
30–39 years	149	17.29	3.26	11.88	13.29	13.89	14.97	17.02	19.23	20.69	21.61	22.79
40–49 years	138	16.96	2.95	12.65	13.37	13.90	14.92	16.48	18.63	20.00	20.37	22.01
50–59 years	109	*15.44	3.50	*10.20	*11.60	*12.15	*12.89	*15.37	*17.13	*18.33	*19.16	*21.36
60–69 years	142	14.57	3.18	9.76	10.55	11.12	12.33	14.24	16.75	18.03	18.77	19.71
70–79 years	50	*13.83	3.08	†	*10.03	*10.65	*11.99	*13.76	*15.53	*17.35	*17.71	*18.54
80 years and over	9	*12.66	4.39	†	†	†	†	*11.48	†	†	†	†
20 years and over, age adjusted	743	16.02	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	8.22	2.24	5.59	5.93	6.26	6.66	7.55	9.28	10.27	11.24	13.00
12–15 years	179	14.99	3.51	9.08	10.51	11.63	12.64	14.91	17.07	18.36	19.70	21.23
16–19 years	175	17.37	2.85	13.24	13.99	14.59	15.28	17.07	19.20	20.42	21.14	†
20–29 years	240	18.39	2.94	13.97	14.98	15.49	16.13	18.00	20.27	21.47	22.29	23.69
30–39 years	268	18.49	2.77	13.77	14.89	15.88	16.62	18.48	20.31	21.21	21.89	22.99
40–49 years	363	18.46	3.27	13.15	14.80	15.49	16.28	18.17	20.31	21.79	22.74	24.20
50–59 years	294	17.39	3.23	12.02	13.05	13.97	14.87	17.34	19.67	20.71	21.42	22.64
60–69 years	275	16.81	3.41	12.03	12.77	13.15	14.26	16.45	18.92	20.51	21.43	22.44
70–79 years	234	16.29	4.03	10.78	11.64	12.29	13.51	15.49	18.51	20.06	22.04	23.31
80 years and over	144	16.39	3.70	9.82	11.59	12.40	14.12	16.20	18.85	19.83	21.28	22.07
20 years and over, age adjusted	1,818	17.84	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	9.31	2.74	5.72	6.33	6.78	7.18	8.62	10.84	12.37	13.20	13.90
12–15 years	226	15.86	3.03	10.64	11.96	12.68	13.81	15.69	17.76	18.94	19.65	20.65
16–19 years	204	17.96	2.72	13.32	14.51	14.99	15.92	17.89	19.69	21.08	21.67	22.49
20–29 years	131	19.03	3.24	14.31	15.26	15.50	16.51	18.99	20.85	22.79	23.74	24.39
30–39 years	148	19.22	3.19	14.68	15.33	16.26	16.92	18.77	21.03	22.24	23.06	24.25
40–49 years	169	19.51	3.85	14.12	14.76	15.27	16.66	19.18	21.64	23.24	24.39	†
50–59 years	143	17.80	3.40	13.03	13.90	14.91	15.54	17.24	19.53	21.23	22.82	23.77
60–69 years	152	18.21	3.70	11.89	13.24	14.25	15.59	18.23	20.74	22.03	23.15	24.54
70–79 years	57	*17.89	3.23	*12.47	*13.45	*14.24	*15.90	*17.95	*19.46	*20.67	*21.48	*23.28
80 years and over	25	*17.38	4.95	†	†	*12.68	*13.48	*15.58	*22.03	*23.14	*24.00	†
20 years and over, age adjusted	825	18.73	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 26. Lumbar spine vertebrae 1 and 2 (L1, L2) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	11.46	2.47	7.95	8.37	8.93	9.70	11.19	12.86	13.69	14.51	15.53
12–15 years	786	20.29	6.62	11.35	11.96	13.01	14.68	19.59	24.48	27.65	29.43	32.62
16–19 years	774	30.01	5.91	20.89	22.59	24.13	26.13	29.44	33.75	36.38	38.00	39.69
20–29 years	717	31.43	5.37	23.03	24.62	25.71	27.80	31.32	34.48	37.11	38.74	40.12
30–39 years	735	31.69	5.71	22.81	24.28	25.71	27.89	31.20	35.34	37.42	39.45	41.38
40–49 years	692	32.50	5.98	23.66	25.11	26.02	28.17	32.17	36.54	38.42	40.15	42.99
50–59 years	624	32.60	6.58	22.44	24.27	25.58	27.74	32.52	36.54	39.79	41.36	44.01
60–69 years	626	33.15	6.59	22.60	25.29	26.94	28.95	32.44	37.34	40.62	41.68	43.78
70–79 years	408	33.82	7.72	22.25	24.73	26.40	28.61	33.10	38.03	41.16	44.66	46.97
80 years and over	209	33.95	8.26	22.55	24.56	25.62	27.98	33.31	38.02	41.56	44.76	47.90
20 years and over, age adjusted	4,011	32.39	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	10.92	2.36	7.82	8.36	8.68	9.29	10.48	12.14	13.04	13.86	15.53
12–15 years	233	20.36	6.32	11.15	11.98	12.88	15.58	19.58	24.66	27.25	28.15	30.22
16–19 years	216	27.65	5.61	18.99	21.02	22.36	23.60	27.12	30.97	33.15	34.69	37.79
20–29 years	195	29.12	4.55	21.74	23.41	24.03	25.63	29.28	32.06	33.68	34.80	36.45
30–39 years	152	29.88	5.70	21.66	22.12	24.13	25.98	29.31	32.89	36.11	37.72	40.55
40–49 years	146	28.95	5.06	21.03	22.75	23.55	25.11	28.70	32.39	34.04	36.15	37.25
50–59 years	102	29.28	5.49	20.20	22.59	23.86	25.46	28.76	32.31	34.88	36.67	39.39
60–69 years	106	30.79	6.65	20.62	22.48	23.28	25.59	29.84	34.29	37.85	40.16	42.11
70–79 years	36	*29.20	7.24	†	*19.83	*20.48	*21.98	*28.50	*34.37	*36.46	*36.82	†
80 years and over	13	*30.27	6.19	†	†	†	*24.38	*28.27	*34.08	*34.58	†	†
20 years and over, age adjusted	750	29.50	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	11.60	2.48	7.88	8.28	8.86	9.95	11.29	13.02	13.86	14.56	15.47
12–15 years	221	20.43	6.69	11.48	12.02	12.81	14.54	19.96	24.35	27.87	29.94	32.62
16–19 years	225	30.33	5.92	20.92	22.86	24.35	26.61	29.62	34.02	37.14	38.40	39.73
20–29 years	283	31.82	5.09	23.32	25.53	26.81	28.16	31.86	35.00	37.28	38.74	39.94
30–39 years	342	32.30	5.60	23.47	24.89	26.47	28.70	31.94	36.06	37.85	39.49	41.49
40–49 years	316	33.09	5.97	24.02	25.42	26.44	28.46	32.66	36.74	38.96	41.17	43.66
50–59 years	323	32.90	6.40	22.91	24.83	26.18	28.17	32.83	36.68	39.95	41.48	43.96
60–69 years	270	33.76	6.28	23.59	26.35	27.63	29.52	33.17	37.97	40.85	41.96	43.80
70–79 years	263	34.09	7.89	22.32	24.76	26.74	28.70	33.16	38.46	41.46	45.34	47.32
80 years and over	164	34.27	8.44	23.11	25.09	25.66	28.08	33.44	38.13	42.13	45.56	47.96
20 years and over, age adjusted	1,961	32.87	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	198	11.85	2.52	8.43	9.14	9.53	10.26	11.63	13.06	13.96	14.61	15.69
12–15 years	231	20.09	6.31	11.34	12.60	13.68	15.37	19.41	24.31	26.70	28.29	30.46
16–19 years	256	30.27	5.78	21.19	23.40	24.45	26.04	29.65	34.43	36.61	37.56	41.00
20–29 years	162	32.71	6.42	23.85	25.52	26.65	28.36	32.22	36.08	39.63	41.25	44.29
30–39 years	143	32.51	6.13	22.98	24.26	25.90	27.79	32.11	36.38	38.80	40.57	42.21
40–49 years	145	32.85	5.83	23.93	25.79	26.85	29.04	32.34	36.92	38.19	39.82	43.02
50–59 years	120	34.35	7.72	23.61	25.45	26.60	28.43	33.36	39.15	41.89	44.30	†
60–69 years	176	33.66	7.72	21.56	24.84	26.07	28.13	32.73	37.65	41.77	43.32	47.08
70–79 years	76	*34.63	6.60	*23.98	*26.52	*27.96	*29.90	*33.55	*39.73	*41.73	*44.49	*45.78
80 years and over	20	*34.17	6.37	†	†	†	*28.00	*34.62	*38.79	*40.34	†	†
20 years and over, age adjusted	842	33.28	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	747	11.53	3.54	7.48	8.05	8.52	9.17	10.52	12.83	14.95	16.98	19.16
12–15 years	717	21.42	5.26	13.01	14.60	16.20	17.87	21.24	24.76	26.48	27.87	30.96
16–19 years	678	24.22	4.49	17.45	18.70	19.52	21.18	23.83	27.13	28.54	29.49	31.98
20–29 years	635	25.80	4.75	18.38	19.60	20.80	22.39	25.77	28.82	30.70	32.01	34.02
30–39 years	650	25.98	4.67	18.74	20.34	21.31	22.61	25.79	29.18	30.74	31.67	33.56
40–49 years	776	26.28	5.17	18.57	19.83	21.08	22.60	25.87	29.38	31.35	32.83	34.92
50–59 years	624	23.97	5.08	16.38	17.85	18.60	20.24	23.47	27.39	29.32	30.61	32.36
60–69 years	653	22.85	4.97	15.63	16.86	17.65	19.19	22.25	26.02	28.28	29.43	31.98
70–79 years	399	21.75	5.64	13.95	15.44	16.46	18.31	21.02	24.44	26.64	28.47	32.84
80 years and over	204	21.86	5.53	13.78	14.94	15.88	17.62	21.46	25.30	27.19	28.72	31.89
20 years and over, age adjusted	3,941	24.84	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 26. Lumbar spine vertebrae 1 and 2 (L1, L2) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	11.10	3.49	7.19	7.49	7.95	8.53	10.32	12.82	14.25	15.52	17.60
12–15 years	231	19.95	4.01	13.60	14.85	15.79	17.23	19.91	22.01	24.20	25.94	27.44
16–19 years	187	22.44	4.07	16.68	17.37	18.01	19.12	22.14	24.94	26.32	27.57	28.68
20–29 years	149	23.91	4.34	16.74	18.25	19.20	21.02	23.50	26.47	28.47	29.93	30.93
30–39 years	149	24.71	4.78	16.93	18.45	19.31	21.26	24.71	27.64	29.72	30.40	31.57
40–49 years	141	24.91	4.20	17.92	19.46	20.43	21.77	24.74	27.63	29.17	29.99	32.02
50–59 years	103	*22.27	5.50	*14.43	*15.63	*16.36	*19.22	*21.77	*24.69	*25.76	*29.48	*30.52
60–69 years	134	*20.28	4.52	*14.06	*14.78	*15.51	*16.68	*19.68	*23.34	*24.69	*25.61	†
70–79 years	46	*18.21	4.73	†	*12.59	*12.84	*14.69	*17.26	*20.00	*23.02	*24.97	†
80 years and over	8	*19.10	7.93	†	†	†	†	*17.09	†	†	†	†
20 years and over, age adjusted	730	22.97	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	11.48	3.33	7.73	8.38	8.78	9.37	10.48	12.73	14.34	16.30	18.33
12–15 years	184	21.76	5.54	12.79	14.16	16.25	17.87	21.69	24.96	27.11	28.66	32.27
16–19 years	196	24.42	4.30	17.80	19.09	19.83	21.60	24.10	27.54	28.52	29.27	31.37
20–29 years	258	26.32	4.57	19.11	20.63	21.76	23.02	26.05	28.94	31.10	32.18	34.04
30–39 years	265	26.43	4.61	18.95	20.91	21.83	22.95	26.39	29.67	31.01	31.85	34.26
40–49 years	360	26.53	5.11	18.97	20.03	21.43	22.79	26.32	29.77	31.51	32.85	34.92
50–59 years	299	24.35	5.04	16.95	17.93	18.73	20.50	24.27	27.74	29.57	30.91	32.38
60–69 years	278	22.98	4.97	15.97	16.95	18.22	19.39	22.34	26.31	28.48	29.80	31.98
70–79 years	248	21.88	5.70	14.17	15.50	16.39	18.35	21.19	24.50	26.64	28.48	32.97
80 years and over	153	21.83	5.36	13.93	15.05	15.93	17.84	21.49	25.13	26.83	28.43	31.12
20 years and over, age adjusted	1,861	25.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	12.64	4.05	7.46	8.50	8.81	9.87	11.37	14.54	16.88	17.92	20.97
12–15 years	226	22.14	4.76	14.34	15.79	16.73	18.81	22.13	25.40	26.72	28.78	30.08
16–19 years	212	25.15	4.86	17.92	18.68	20.37	21.85	24.47	28.00	29.88	31.08	†
20–29 years	138	26.26	4.99	17.81	19.06	20.63	22.80	26.23	29.54	31.16	32.69	34.88
30–39 years	144	26.67	4.68	20.23	21.38	22.27	22.96	26.14	29.51	31.00	32.47	33.64
40–49 years	171	27.29	5.84	19.11	20.43	21.43	23.05	26.78	30.88	33.32	34.76	36.11
50–59 years	143	24.53	4.97	16.55	18.69	19.31	21.20	24.71	27.84	30.05	30.94	32.98
60–69 years	166	24.33	5.00	16.68	17.79	19.38	20.60	24.08	27.13	29.16	31.72	32.61
70–79 years	73	*23.44	5.23	*16.68	*17.28	*18.43	*19.99	*22.94	*25.68	*28.36	*29.84	*32.73
80 years and over	31	*22.66	6.35	†	*14.72	*16.93	*17.70	*20.08	*26.95	*29.88	*31.43	†
20 years and over, age adjusted	866	25.70	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 27. Lumbar spine vertebrae 1 and 3 (L1, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	12.39	2.64	8.62	9.10	9.63	10.56	12.16	13.83	14.96	15.74	16.76
12–15 years	786	21.62	6.94	12.22	12.94	13.78	15.73	20.89	26.23	28.86	30.70	34.95
16–19 years	775	31.84	6.07	22.38	24.21	25.78	27.99	31.58	35.52	38.33	39.53	42.17
20–29 years	715	33.25	5.62	24.45	26.27	27.25	29.35	32.95	36.62	39.36	40.75	42.82
30–39 years	729	33.04	5.95	23.88	25.32	26.55	28.85	32.85	36.95	39.15	40.71	43.76
40–49 years	689	33.85	6.09	24.43	26.41	27.39	29.53	33.91	37.78	40.06	41.29	44.74
50–59 years	603	33.94	6.85	23.13	25.08	26.63	28.99	33.76	38.33	41.36	43.32	45.69
60–69 years	590	34.62	6.72	23.63	26.32	28.05	30.41	34.11	39.06	41.85	43.20	45.85
70–79 years	371	35.49	7.74	24.58	26.64	27.56	30.21	34.39	39.65	43.88	46.90	49.51
80 years and over	193	35.44	8.79	23.43	25.57	27.07	29.11	34.67	40.75	43.27	46.04	51.14
20 years and over, age adjusted	3,890	33.87	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	11.79	2.51	8.26	9.19	9.49	9.96	11.34	13.11	14.27	14.98	16.52
12–15 years	232	21.77	6.58	11.95	13.09	13.76	16.88	21.08	26.39	28.73	30.46	32.12
16–19 years	217	29.16	5.54	20.67	22.32	23.75	25.15	28.48	32.36	34.70	35.60	38.98
20–29 years	194	30.73	4.75	23.80	24.92	25.90	26.98	30.27	33.80	35.53	36.90	38.26
30–39 years	152	30.95	5.83	21.94	23.59	24.47	26.81	30.35	34.36	36.66	38.92	41.50
40–49 years	148	29.97	5.35	22.44	22.86	24.11	26.12	29.59	33.33	36.15	37.41	39.03
50–59 years	100	30.45	5.72	21.67	22.54	24.11	26.56	29.63	34.13	36.23	37.80	39.38
60–69 years	105	*32.10	6.97	*21.29	*22.93	*24.85	*27.32	*31.48	*35.28	*38.83	*41.22	*44.32
70–79 years	33	*29.94	6.54	†	†	*22.34	*22.83	*30.07	*35.66	*37.23	*37.60	†
80 years and over	13	*30.63	6.45	†	†	†	*25.20	*27.54	*35.47	*37.10	†	†
20 years and over, age adjusted	745	30.64	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	12.53	2.64	8.62	8.90	9.50	10.87	12.35	14.03	15.09	15.80	16.70
12–15 years	221	21.70	6.98	12.31	12.94	13.57	15.48	21.46	26.23	28.91	30.55	34.97
16–19 years	225	32.17	6.10	22.35	24.39	26.05	28.26	31.74	35.74	38.77	39.79	42.00
20–29 years	282	33.62	5.35	25.36	27.04	28.03	30.00	33.44	37.00	39.57	40.78	42.51
30–39 years	338	33.63	5.84	24.13	25.87	27.81	29.54	33.38	37.26	39.50	41.08	43.79
40–49 years	312	34.44	5.98	25.11	26.95	28.25	29.95	34.54	38.12	40.24	41.69	45.09
50–59 years	313	34.26	6.60	23.64	25.62	27.53	29.54	34.14	38.40	41.60	43.47	45.71
60–69 years	252	35.22	6.36	25.13	26.67	28.65	31.19	34.75	39.45	41.90	43.41	45.99
70–79 years	239	35.70	7.83	24.66	26.68	28.50	30.31	34.59	40.18	43.97	47.69	49.99
80 years and over	150	35.79	8.96	23.94	26.02	27.28	29.22	34.67	41.02	43.50	47.03	52.48
20 years and over, age adjusted	1,886	34.34	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	12.82	2.68	9.16	9.96	10.35	11.06	12.57	14.20	15.05	15.88	17.42
12–15 years	232	21.61	6.72	11.98	13.83	14.84	16.38	20.70	26.20	28.53	30.61	32.30
16–19 years	256	32.33	5.98	22.69	25.02	26.13	28.29	31.61	36.60	38.71	39.61	42.73
20–29 years	163	34.80	6.79	25.56	27.14	28.25	29.79	34.04	38.25	41.73	43.52	46.37
30–39 years	142	34.27	6.20	24.02	25.94	27.22	29.63	33.94	38.16	40.66	42.84	44.77
40–49 years	144	34.87	6.08	26.48	28.00	28.94	30.21	34.49	38.86	40.78	42.47	44.76
50–59 years	114	36.38	8.08	25.47	26.10	28.25	30.05	35.56	40.89	43.94	46.13	51.64
60–69 years	160	35.27	7.72	23.97	26.19	26.97	29.94	34.91	39.32	43.36	45.81	48.31
70–79 years	70	*37.25	7.40	*27.00	*27.58	*29.32	*31.91	*35.60	*41.82	*46.15	*46.41	*49.02
80 years and over	18	*36.33	7.06	†	†	†	*28.58	*36.50	*42.24	†	†	†
20 years and over, age adjusted	811	35.27	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	12.52	3.81	8.19	8.69	9.24	9.97	11.52	14.08	16.36	17.84	20.55
12–15 years	714	23.05	5.44	14.28	16.00	17.48	19.39	23.15	26.20	28.09	30.17	32.51
16–19 years	661	26.20	4.68	19.21	20.47	21.29	22.93	25.74	29.06	31.08	32.27	34.48
20–29 years	624	27.93	4.86	20.38	21.59	22.79	24.44	27.98	30.88	33.01	34.57	36.11
30–39 years	650	28.09	4.78	20.65	22.25	23.32	24.68	27.95	31.34	32.64	33.92	36.06
40–49 years	777	28.31	5.28	20.11	21.69	23.07	24.61	27.99	31.57	33.49	35.50	37.45
50–59 years	614	25.98	5.18	18.16	19.90	20.74	21.97	25.92	29.24	31.27	32.68	34.57
60–69 years	630	24.85	5.20	17.36	18.78	19.79	21.13	24.18	27.81	30.71	31.98	34.44
70–79 years	375	23.70	5.83	15.41	16.74	18.42	19.86	22.96	26.69	28.99	30.52	34.16
80 years and over	188	23.86	5.32	15.76	16.73	18.73	20.25	23.37	27.01	29.19	30.89	32.88
20 years and over, age adjusted	3,858	26.89	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 27. Lumbar spine vertebrae 1 and 3 (L1, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	12.05	3.73	7.71	8.25	8.53	9.24	11.32	13.77	15.37	16.42	19.21
12–15 years	231	21.70	4.28	14.64	16.25	17.10	18.59	21.76	24.03	25.89	27.29	29.33
16–19 years	184	24.35	4.24	18.21	19.00	19.72	21.06	24.56	27.00	28.26	29.25	30.63
20–29 years	148	25.63	4.25	18.90	20.18	21.33	22.66	25.21	28.73	30.20	31.54	32.39
30–39 years	149	26.65	5.16	18.53	20.22	20.85	23.22	26.72	29.85	31.56	33.04	34.03
40–49 years	140	26.65	4.16	19.89	21.02	22.38	23.59	26.47	29.30	30.61	31.90	33.94
50–59 years	106	*23.90	5.66	*16.51	*17.26	*17.91	*20.14	*23.37	*26.14	*27.97	*30.74	*34.02
60–69 years	135	*22.03	4.82	*15.01	*16.45	*17.22	*18.05	*21.18	*25.00	*26.78	*27.88	*29.95
70–79 years	46	*20.08	4.93	†	*14.27	*15.24	*16.25	*19.39	*22.31	*25.53	*27.14	†
80 years and over	10	*18.90	7.19	†	†	†	†	*15.01	*20.61	†	†	†
20 years and over, age adjusted	734	24.66	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	12.45	3.57	8.34	9.03	9.39	10.09	11.53	13.79	15.51	17.64	20.13
12–15 years	181	23.27	5.67	14.26	15.82	17.35	19.39	23.27	26.31	28.50	30.69	33.24
16–19 years	188	26.40	4.51	19.65	20.83	21.92	23.20	25.83	29.45	31.11	32.15	34.54
20–29 years	256	28.43	4.58	21.25	22.40	23.95	24.79	28.14	31.06	33.08	34.84	36.56
30–39 years	265	28.48	4.60	21.04	23.12	23.75	24.96	28.35	31.42	33.06	33.92	36.16
40–49 years	363	28.53	5.17	20.45	22.27	23.33	24.92	28.31	31.77	33.51	35.52	37.18
50–59 years	289	26.39	5.12	18.49	20.03	20.87	22.42	26.42	29.57	31.58	32.70	34.59
60–69 years	268	25.02	5.17	17.47	19.18	20.11	21.24	24.26	27.82	30.79	32.10	34.38
70–79 years	230	23.82	5.89	15.53	16.76	18.44	19.83	23.18	26.69	29.08	30.52	34.14
80 years and over	141	23.99	5.07	15.85	16.96	18.86	20.56	23.58	27.05	28.96	30.80	32.38
20 years and over, age adjusted	1,812	27.21	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	13.72	4.36	8.47	8.97	9.53	10.60	12.53	16.20	18.25	19.87	22.44
12–15 years	226	24.09	5.02	15.54	17.38	18.56	20.99	23.97	27.18	29.05	30.70	32.51
16–19 years	207	27.33	5.01	20.12	20.62	22.00	23.92	26.52	30.57	32.24	33.72	†
20–29 years	133	28.96	5.31	19.99	21.03	23.28	25.78	29.02	32.37	34.50	35.31	†
30–39 years	144	29.22	4.88	21.73	23.86	24.59	25.57	28.62	32.32	34.03	35.09	36.56
40–49 years	171	29.53	6.12	20.67	22.30	23.19	25.15	29.12	33.41	35.99	37.29	39.35
50–59 years	139	26.63	5.14	19.00	20.04	21.31	22.71	26.09	30.23	32.37	33.30	35.87
60–69 years	153	26.64	5.40	17.99	20.12	20.93	22.84	26.36	29.51	31.92	33.65	35.83
70–79 years	70	*25.54	5.30	*18.68	*19.71	*20.79	*21.94	*24.48	*28.32	*30.22	*32.36	*35.44
80 years and over	26	*24.46	7.11	†	†	*19.62	*20.15	*21.94	*27.25	*31.85	*35.62	†
20 years and over, age adjusted	836	28.05	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 28. Lumbar spine vertebrae 1 and 4 (L1, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	13.39	2.75	9.30	10.09	10.50	11.48	13.22	15.10	15.98	16.62	18.01
12–15 years	786	22.98	7.15	13.17	14.00	15.04	16.87	22.25	27.51	30.85	32.87	35.94
16–19 years	774	33.66	6.32	24.09	25.42	27.24	29.50	33.31	37.90	40.41	41.88	43.98
20–29 years	709	35.08	5.89	25.95	27.42	29.07	31.10	34.67	38.92	41.24	42.98	45.44
30–39 years	722	34.76	6.06	25.16	27.28	28.32	30.20	34.90	38.80	40.64	42.13	44.84
40–49 years	676	35.72	6.44	25.80	27.66	28.65	31.11	35.69	40.08	42.03	43.72	46.44
50–59 years	599	36.14	7.07	24.51	26.83	28.69	31.13	36.10	40.90	43.80	45.39	48.36
60–69 years	559	36.72	6.94	25.25	27.68	29.87	32.32	36.25	40.97	44.74	45.88	48.17
70–79 years	363	37.60	7.99	25.68	27.56	29.51	32.58	36.37	42.32	46.16	48.84	51.63
80 years and over	179	38.30	9.41	25.84	27.35	28.85	31.43	37.42	43.13	46.79	50.33	55.43
20 years and over, age adjusted	3,807	35.84	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	12.77	2.59	9.24	10.07	10.29	10.89	12.35	14.24	14.94	16.33	17.67
12–15 years	233	23.15	6.91	13.29	14.41	15.24	17.91	22.48	27.87	30.34	32.55	33.77
16–19 years	217	30.71	5.83	21.41	24.00	24.55	26.80	30.31	33.88	36.27	38.79	41.53
20–29 years	193	32.29	4.93	25.20	26.21	27.07	28.94	31.81	35.33	37.35	38.39	41.30
30–39 years	149	32.89	6.15	23.41	24.87	26.25	29.15	32.39	36.32	38.47	41.32	44.53
40–49 years	143	31.66	5.56	24.06	24.60	25.48	27.85	31.52	34.28	37.03	40.02	41.67
50–59 years	101	32.44	6.00	23.30	24.19	25.33	27.93	32.28	36.30	39.06	40.17	42.50
60–69 years	98	*34.18	7.42	*22.94	*24.12	*26.25	*29.32	*33.49	*38.03	*41.97	*46.03	*46.84
70–79 years	37	*32.60	7.17	†	*23.56	*23.85	*24.79	*32.21	*37.45	*40.55	*41.41	*43.23
80 years and over	12	*33.45	6.52	†	†	†	*29.77	*31.52	*37.33	*40.74	†	†
20 years and over, age adjusted	733	32.58	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	13.52	2.77	9.22	9.69	10.49	11.60	13.35	15.25	16.00	16.57	18.08
12–15 years	220	23.01	7.15	13.40	13.94	15.01	16.55	22.60	27.25	31.00	32.85	35.94
16–19 years	225	33.99	6.34	24.40	25.50	27.67	30.01	33.74	38.16	40.81	41.84	43.95
20–29 years	282	35.52	5.61	26.31	28.34	29.95	31.77	34.95	39.32	41.39	42.93	45.33
30–39 years	333	35.25	5.88	25.89	27.96	29.11	30.99	35.30	38.97	40.65	42.45	44.83
40–49 years	306	36.32	6.29	26.17	27.99	29.67	31.68	36.37	40.41	42.65	43.76	46.52
50–59 years	312	36.45	6.97	24.52	26.90	29.35	31.39	36.40	41.55	44.13	45.59	48.35
60–69 years	245	37.17	6.51	26.11	28.83	30.58	33.16	36.99	41.40	44.91	45.67	47.85
70–79 years	233	37.68	8.02	26.30	27.68	29.57	32.60	36.25	42.49	46.54	49.11	51.71
80 years and over	143	38.69	9.60	26.24	27.41	28.87	31.41	37.51	43.53	47.62	52.80	†
20 years and over, age adjusted	1,854	36.28	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	13.97	2.75	10.23	10.96	11.43	12.04	13.66	15.32	16.33	17.15	18.17
12–15 years	232	23.20	7.01	12.96	14.81	16.20	18.00	22.51	27.30	30.44	32.60	35.27
16–19 years	255	34.35	6.26	24.75	26.59	28.16	29.90	33.62	38.97	40.83	42.54	45.55
20–29 years	158	36.71	6.95	27.27	28.86	30.00	31.81	35.83	39.82	43.88	46.19	47.63
30–39 years	143	36.28	6.61	26.41	27.78	29.21	31.05	36.01	40.67	42.58	44.55	46.10
40–49 years	141	36.71	6.42	27.43	29.63	31.08	32.13	36.40	40.06	42.55	44.52	47.86
50–59 years	111	38.25	7.84	27.67	29.20	29.98	31.93	37.10	43.10	45.80	49.63	51.84
60–69 years	144	38.16	8.16	26.28	29.09	29.62	31.55	37.45	42.60	46.64	49.63	52.66
70–79 years	66	*40.53	7.66	*28.19	*31.53	*32.30	*34.33	*39.91	*45.91	*48.73	*50.48	*53.03
80 years and over	14	*38.49	6.79	†	†	†	*32.37	*36.82	†	†	†	†
20 years and over, age adjusted	777	37.41	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	13.58	4.00	8.92	9.58	10.11	10.82	12.44	15.41	17.21	19.28	22.26
12–15 years	708	24.66	5.68	15.36	17.60	18.99	20.90	24.73	27.81	30.51	32.18	34.09
16–19 years	634	28.16	4.78	20.94	22.33	23.24	24.79	27.70	31.28	33.44	34.28	36.47
20–29 years	598	29.80	5.08	21.88	23.78	24.43	26.02	29.56	32.88	35.27	36.87	38.68
30–39 years	645	30.02	4.98	22.38	23.80	25.10	26.43	29.70	33.41	34.98	36.23	38.25
40–49 years	752	30.15	5.60	21.42	23.94	24.86	26.01	29.64	33.35	35.79	37.12	40.07
50–59 years	599	27.87	5.45	19.66	21.03	22.06	23.80	27.52	31.55	33.59	35.05	36.94
60–69 years	614	27.12	5.51	19.18	20.46	21.46	23.03	26.54	30.85	33.41	34.59	36.62
70–79 years	342	25.84	6.42	17.04	18.30	20.07	21.57	24.50	28.98	31.89	33.65	38.01
80 years and over	175	26.34	5.66	17.51	18.65	20.67	22.70	25.46	29.71	32.60	34.16	35.35
20 years and over, age adjusted	3,725	28.86	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 28. Lumbar spine vertebrae 1 and 4 (L1, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	13.13	3.90	8.31	9.07	9.53	10.18	12.37	15.04	16.71	17.79	20.91
12–15 years	228	23.36	4.42	15.94	17.63	18.60	20.26	23.44	26.02	27.54	29.21	30.97
16–19 years	178	26.08	4.31	19.81	20.76	21.06	22.66	25.91	28.54	29.80	31.46	32.53
20–29 years	145	27.41	4.65	20.58	21.92	22.76	24.13	26.75	30.16	32.91	33.81	†
30–39 years	149	28.41	5.39	19.78	21.89	22.73	24.85	28.19	31.96	33.58	34.84	36.89
40–49 years	137	28.28	4.74	21.21	22.39	23.23	24.97	28.13	31.12	32.80	34.13	36.08
50–59 years	103	*25.60	6.02	*16.97	*18.46	*19.89	*21.88	*24.97	*27.92	*30.41	*32.17	*34.95
60–69 years	130	*23.98	5.18	*16.51	*17.62	*18.40	*19.91	*23.57	*27.79	*29.25	*30.05	*31.76
70–79 years	44	*22.04	4.98	†	*15.42	*16.33	*18.09	*21.47	*24.55	*27.30	*28.71	†
80 years and over	9	*20.69	7.77	†	†	†	†	*18.30	†	†	†	†
20 years and over, age adjusted	717	26.42	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	13.45	3.74	9.11	9.81	10.27	10.93	12.30	14.97	16.80	18.79	21.67
12–15 years	179	24.83	5.99	15.20	16.87	18.70	20.83	24.93	27.87	31.26	33.13	35.75
16–19 years	174	28.52	4.64	22.11	22.75	23.59	25.06	28.12	31.63	33.49	34.65	36.36
20–29 years	237	30.33	4.85	23.54	24.41	25.20	27.02	29.86	32.98	35.66	36.96	38.94
30–39 years	260	30.44	4.76	23.02	24.29	25.70	27.07	30.48	33.64	35.10	36.17	38.44
40–49 years	354	30.38	5.45	21.80	24.55	25.24	26.41	29.98	33.51	35.87	37.10	39.67
50–59 years	284	28.31	5.36	19.78	21.05	22.12	24.14	28.15	32.00	34.12	35.41	36.95
60–69 years	264	27.29	5.47	19.74	20.80	21.56	23.32	26.58	30.99	33.70	34.63	36.60
70–79 years	217	25.96	6.50	17.09	18.35	20.07	21.77	24.52	28.99	31.95	33.82	38.21
80 years and over	132	26.46	5.36	17.61	18.97	21.18	22.83	25.84	29.75	32.49	33.71	†
20 years and over, age adjusted	1,748	29.20	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	14.98	4.55	9.11	10.28	10.64	11.60	13.85	17.68	19.81	21.15	23.49
12–15 years	225	25.85	5.14	17.72	18.88	20.49	22.30	25.75	29.28	31.31	33.04	33.90
16–19 years	203	29.31	4.79	22.41	23.13	24.11	25.87	28.87	32.80	34.29	35.62	38.02
20–29 years	130	30.82	5.48	21.83	23.21	25.49	27.16	30.44	34.40	36.92	38.03	†
30–39 years	144	31.18	5.30	23.78	25.18	25.68	27.68	30.58	34.09	36.20	37.23	39.54
40–49 years	165	31.53	6.39	22.23	23.89	25.67	27.07	31.04	34.92	37.89	39.25	41.87
50–59 years	134	28.85	5.38	20.29	22.97	24.22	25.12	28.01	31.85	34.68	35.57	38.19
60–69 years	148	29.01	5.69	19.34	21.77	22.74	24.95	28.93	32.34	34.70	37.03	39.41
70–79 years	55	*28.30	5.42	*20.75	*21.22	*22.24	*24.21	*28.17	*30.23	*32.47	*35.82	*38.41
80 years and over	23	*26.80	7.68	†	†	*19.32	*21.94	*24.01	*33.78	*35.17	†	†
20 years and over, age adjusted	799	30.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 29. Lumbar spine vertebrae 2 and 3 (L2, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	13.29	2.80	9.31	9.85	10.31	11.29	12.99	14.92	15.99	16.89	18.09
12–15 years	787	23.12	7.32	13.16	14.08	14.86	17.09	22.20	28.08	31.07	32.89	37.03
16–19 years	776	33.93	6.34	23.84	25.83	27.71	29.83	33.69	37.81	40.90	42.51	44.44
20–29 years	720	35.60	5.82	26.27	28.09	29.48	31.63	35.43	39.32	41.63	43.35	45.59
30–39 years	741	35.25	6.23	25.69	27.48	28.48	30.89	34.95	39.33	41.29	43.31	46.53
40–49 years	709	35.84	6.45	26.11	27.76	29.08	31.05	35.94	39.95	42.35	43.94	47.28
50–59 years	632	36.07	7.27	24.65	26.63	28.51	30.80	35.55	40.85	43.38	45.13	49.60
60–69 years	612	36.88	7.03	25.85	28.22	30.03	32.45	36.22	41.45	44.09	46.25	49.00
70–79 years	387	37.35	8.14	24.83	27.63	29.40	31.58	36.06	42.22	45.66	49.31	51.84
80 years and over	202	37.62	9.38	25.10	26.78	28.89	30.89	36.52	41.44	46.55	48.04	55.59
20 years and over, age adjusted	4,003	36.02	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	12.55	2.71	8.61	9.60	10.00	10.58	12.12	14.12	15.01	15.88	17.66
12–15 years	233	23.23	7.04	12.84	14.11	14.83	17.86	22.51	28.27	31.14	32.34	34.42
16–19 years	216	31.16	5.88	22.43	24.11	24.90	26.72	30.79	34.43	36.54	38.04	41.80
20–29 years	196	32.83	4.76	24.96	26.83	27.89	29.16	32.78	35.96	37.85	39.30	40.41
30–39 years	156	33.09	6.13	23.18	25.18	26.93	28.55	32.91	36.83	38.71	41.37	44.95
40–49 years	151	31.84	5.73	24.32	25.24	25.59	27.24	31.06	35.80	38.18	39.57	41.25
50–59 years	104	32.53	6.13	22.59	24.46	25.55	28.72	31.92	36.43	38.65	40.21	42.61
60–69 years	108	*34.22	7.26	*23.57	*24.84	*26.53	*29.30	*33.73	*37.64	*41.29	*44.16	*47.20
70–79 years	36	*32.17	7.47	†	*22.69	*23.09	*24.07	*32.89	*38.67	*40.06	*41.27	†
80 years and over	13	*32.72	6.78	†	†	†	*26.15	*29.33	*38.58	*39.37	†	†
20 years and over, age adjusted	764	32.71	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	207	13.45	2.80	9.38	9.83	10.26	11.64	13.34	15.06	16.10	16.92	17.82
12–15 years	221	23.19	7.33	13.29	14.06	14.70	17.04	22.70	28.01	31.16	32.89	37.04
16–19 years	226	34.27	6.34	23.84	26.70	28.03	30.14	34.10	37.92	41.15	42.81	44.32
20–29 years	286	36.03	5.51	27.05	28.62	30.27	32.09	35.80	39.77	41.70	43.38	45.27
30–39 years	340	35.95	6.18	25.88	27.92	29.39	32.01	35.44	39.98	41.63	43.63	46.96
40–49 years	321	36.43	6.30	26.90	28.41	29.58	31.45	36.31	40.12	42.68	44.38	47.53
50–59 years	325	36.35	7.05	24.74	27.48	29.16	31.22	35.83	40.96	43.65	45.15	49.61
60–69 years	267	37.45	6.61	26.96	29.06	31.15	33.10	37.17	41.75	44.45	46.63	49.02
70–79 years	254	37.43	8.20	24.90	27.67	29.42	31.59	35.95	42.31	46.62	49.90	52.08
80 years and over	156	37.96	9.56	25.25	26.91	29.06	31.31	36.52	42.27	46.85	48.32	56.14
20 years and over, age adjusted	1,949	36.50	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	13.89	2.81	10.18	10.79	11.27	11.93	13.49	15.41	16.49	17.24	18.69
12–15 years	231	23.14	7.01	13.04	14.95	16.25	17.64	22.11	27.91	30.38	32.35	34.75
16–19 years	257	34.49	6.30	25.39	26.56	27.82	30.10	33.79	39.08	41.17	42.86	45.65
20–29 years	162	37.19	6.97	27.40	29.02	30.86	32.51	36.61	40.56	43.75	46.31	48.46
30–39 years	145	36.54	6.27	26.67	27.94	29.95	31.72	36.07	40.55	43.48	44.85	47.03
40–49 years	151	36.93	6.58	27.73	29.52	30.78	32.45	36.54	41.20	42.88	45.37	49.07
50–59 years	120	38.91	8.30	26.75	28.72	30.33	32.74	38.47	43.40	46.18	49.90	54.38
60–69 years	167	38.07	8.34	26.39	28.39	29.77	31.79	37.73	42.61	46.42	49.20	52.89
70–79 years	68	*40.04	7.82	*28.79	*30.07	*31.64	*34.13	*37.78	*44.98	*48.50	*49.42	*52.73
80 years and over	19	*39.83	7.87	†	†	†	*31.10	*39.00	*46.03	†	†	†
20 years and over, age adjusted	832	37.71	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	13.63	4.11	8.89	9.56	10.00	10.83	12.41	15.27	17.70	19.33	22.58
12–15 years	715	25.00	5.78	15.46	17.44	19.16	21.24	24.90	28.58	30.69	32.09	34.92
16–19 years	662	28.50	5.02	21.00	22.25	23.17	24.95	28.09	31.38	33.86	34.70	37.53
20–29 years	628	30.46	5.21	22.25	23.61	24.73	26.65	30.34	33.92	36.07	37.19	39.08
30–39 years	659	30.62	5.05	22.95	24.18	25.65	27.02	30.49	34.09	35.74	36.99	38.86
40–49 years	778	30.91	5.63	22.29	23.64	24.93	26.86	30.51	34.60	36.46	38.22	40.27
50–59 years	629	28.29	5.48	20.23	21.71	22.82	24.33	27.95	31.77	33.81	35.19	37.29
60–69 years	646	27.35	5.80	19.30	20.66	21.86	23.30	26.59	30.75	33.26	34.83	38.14
70–79 years	380	25.96	6.17	17.16	18.75	19.60	22.02	25.39	28.93	31.58	33.78	37.12
80 years and over	188	26.01	5.69	16.73	18.77	20.56	22.19	25.50	29.60	31.88	33.55	35.43
20 years and over, age adjusted	3,908	29.35	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 29. Lumbar spine vertebrae 2 and 3 (L2, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	13.11	4.03	8.21	8.94	9.28	10.03	12.36	15.04	16.88	17.99	21.23
12–15 years	231	23.52	4.56	16.24	17.84	18.76	20.28	23.70	25.61	28.41	29.84	31.37
16–19 years	184	26.58	4.59	19.68	20.99	21.63	23.09	26.71	29.45	30.88	31.97	33.18
20–29 years	149	27.86	4.54	21.02	22.27	22.96	24.54	27.33	30.81	32.57	33.56	34.96
30–39 years	149	29.12	5.39	20.74	22.20	23.06	25.72	28.95	32.43	34.63	35.62	37.43
40–49 years	141	29.00	4.48	21.58	23.09	24.13	26.16	28.79	32.09	33.60	34.13	37.18
50–59 years	107	26.02	5.89	17.23	18.74	20.00	22.63	25.45	28.23	31.23	32.14	35.97
60–69 years	143	*23.68	5.03	*16.20	*17.66	*18.26	*20.08	*23.15	*26.52	*28.93	*30.75	*31.73
70–79 years	49	*22.26	5.99	†	*14.93	*15.97	*17.53	*21.45	*24.91	*27.69	*29.19	†
80 years and over	8	*21.50	8.19	†	†	†	†	*19.32	†	†	†	†
20 years and over, age adjusted	746	26.90	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	13.52	3.82	9.31	9.68	10.27	11.08	12.22	14.96	17.18	19.03	21.60
12–15 years	181	25.19	6.01	15.42	17.23	19.13	21.20	25.02	28.92	31.07	32.23	35.61
16–19 years	189	28.66	4.86	21.72	22.59	23.47	25.05	28.27	31.41	33.87	34.54	37.45
20–29 years	259	30.98	4.99	23.22	24.63	25.91	27.34	30.85	34.09	36.27	37.49	39.37
30–39 years	270	31.02	4.91	23.12	24.81	26.16	27.08	31.10	34.38	35.83	37.13	39.08
40–49 years	363	31.13	5.50	22.51	24.17	25.59	27.20	30.61	34.70	36.75	38.15	40.25
50–59 years	295	28.70	5.41	20.49	22.18	22.96	24.68	28.65	32.06	33.95	35.23	37.31
60–69 years	271	27.59	5.77	19.67	21.09	22.23	23.66	26.61	30.95	33.32	35.01	38.44
70–79 years	229	26.14	6.17	17.37	18.96	19.63	22.08	25.68	28.97	31.76	33.85	37.18
80 years and over	140	26.17	5.38	17.18	19.07	20.82	22.38	25.78	29.71	31.77	33.41	35.24
20 years and over, age adjusted	1,827	29.69	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	15.03	4.70	9.32	10.08	10.56	11.53	13.87	17.92	19.75	21.42	24.34
12–15 years	227	26.26	5.37	17.05	18.87	20.04	22.65	26.42	29.43	31.64	33.38	35.01
16–19 years	207	29.85	5.31	22.20	23.21	24.35	26.28	29.20	33.09	34.98	36.25	†
20–29 years	132	31.72	5.51	22.23	23.77	25.55	28.04	31.60	35.86	37.35	38.29	39.94
30–39 years	147	32.00	5.01	24.25	26.07	27.29	28.36	31.50	34.85	37.03	38.08	39.85
40–49 years	171	32.41	6.43	22.94	24.78	25.34	28.07	31.69	35.87	38.89	40.56	42.07
50–59 years	147	29.03	5.54	20.82	21.84	23.63	25.06	28.57	32.18	34.93	36.83	38.46
60–69 years	155	29.25	5.87	19.85	21.90	23.03	25.05	28.71	32.65	34.87	37.21	38.68
70–79 years	69	*28.21	5.60	*20.46	*21.95	*23.30	*24.60	*27.57	*30.91	*33.18	*34.51	*39.82
80 years and over	28	*26.38	8.11	†	†	*20.10	*21.60	*23.40	*27.59	*34.84	*39.23	†
20 years and over, age adjusted	849	30.72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%-39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 30. Lumbar spine vertebrae 2 and 4 (L2, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	14.30	2.93	10.02	10.68	11.18	12.23	14.03	16.10	17.25	18.04	19.33
12–15 years	787	24.47	7.53	14.31	15.31	16.15	17.96	23.71	29.57	32.63	35.02	37.56
16–19 years	775	35.74	6.59	25.50	27.05	29.26	31.40	35.51	39.90	42.46	44.46	46.95
20–29 years	714	37.44	6.09	27.50	29.62	30.96	33.25	37.12	41.14	43.82	45.39	48.55
30–39 years	733	36.96	6.33	27.38	28.87	30.40	32.48	36.92	40.99	43.20	44.82	47.92
40–49 years	694	37.71	6.82	27.54	28.75	30.39	32.96	37.38	42.40	44.57	45.91	49.59
50–59 years	621	38.21	7.43	26.18	28.36	30.45	32.98	37.95	43.03	45.72	47.87	51.44
60–69 years	566	39.12	7.33	26.76	29.96	31.62	34.35	39.12	43.75	46.81	49.12	50.92
70–79 years	374	39.57	8.51	27.23	28.57	30.73	33.46	38.30	45.14	48.94	51.47	54.46
80 years and over	179	40.52	10.11	26.63	29.34	30.71	33.31	39.82	44.66	49.41	52.86	59.38
20 years and over, age adjusted	3,881	38.01	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	13.52	2.80	9.79	10.45	10.83	11.50	13.01	15.04	16.28	17.30	18.74
12–15 years	234	24.62	7.37	14.17	15.66	16.34	18.79	23.81	29.53	32.55	34.40	36.97
16–19 years	216	32.71	6.16	23.58	25.45	26.33	28.00	32.24	36.10	38.26	40.84	43.52
20–29 years	195	34.38	4.88	26.98	28.21	29.05	31.04	34.07	37.22	39.81	40.78	42.37
30–39 years	153	35.04	6.43	24.41	27.11	28.87	30.66	34.19	38.31	42.01	43.94	46.02
40–49 years	146	33.50	6.03	25.21	26.37	27.22	29.16	32.74	36.82	39.21	42.09	43.51
50–59 years	103	34.23	6.20	24.14	26.06	27.48	29.70	33.84	37.53	40.92	42.38	44.24
60–69 years	99	*36.29	7.79	*24.58	*26.18	*27.85	*31.34	*35.26	*40.45	*45.68	*47.64	*48.71
70–79 years	40	*34.66	7.38	†	*24.74	*24.94	*26.80	*34.39	*40.31	*43.26	*43.58	†
80 years and over	12	*35.53	6.82	†	†	†	*30.05	*33.05	*40.42	*41.95	†	†
20 years and over, age adjusted	748	34.58	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	207	14.44	2.94	9.99	10.48	11.26	12.45	14.16	16.40	17.27	18.13	19.12
12–15 years	220	24.50	7.50	14.46	15.26	15.91	17.92	24.10	29.23	32.76	34.58	37.59
16–19 years	226	36.09	6.58	25.26	27.04	29.67	31.78	35.95	40.05	42.45	44.73	46.58
20–29 years	286	37.95	5.78	27.97	30.56	31.70	33.96	37.56	41.82	44.02	45.38	48.09
30–39 years	335	37.54	6.21	27.61	29.51	30.74	33.29	37.57	41.64	43.25	44.93	47.99
40–49 years	314	38.31	6.61	28.46	29.67	30.94	33.62	38.16	42.71	44.87	46.02	49.48
50–59 years	320	38.49	7.33	26.14	28.52	30.99	33.16	38.56	43.54	46.32	48.18	51.30
60–69 years	251	39.61	6.86	28.15	30.71	32.62	35.42	39.61	44.17	46.83	49.13	50.81
70–79 years	244	39.59	8.56	27.29	28.60	30.82	33.44	38.26	45.13	48.92	51.63	54.54
80 years and over	140	40.99	10.36	27.09	29.63	30.80	33.43	40.28	45.40	49.50	55.36	†
20 years and over, age adjusted	1,890	38.47	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	15.05	2.90	11.00	11.89	12.39	13.02	14.56	16.40	17.83	18.56	19.75
12–15 years	231	24.73	7.30	14.26	16.24	17.44	19.17	23.40	29.68	32.42	34.62	36.61
16–19 years	256	36.51	6.57	26.44	28.35	29.72	32.05	36.13	41.50	43.57	45.42	48.34
20–29 years	157	39.10	7.13	29.13	31.49	32.53	34.40	38.02	42.18	45.93	48.40	50.41
30–39 years	145	38.56	6.67	28.47	30.20	30.97	33.70	38.13	42.66	45.32	47.52	49.27
40–49 years	148	38.77	6.94	28.25	31.27	32.63	33.96	38.78	42.42	44.84	46.61	51.47
50–59 years	116	40.76	8.06	28.68	31.03	32.00	34.38	39.45	45.36	48.34	52.67	55.08
60–69 years	149	40.88	8.72	28.03	30.95	32.36	33.91	40.17	45.53	49.30	52.67	56.35
70–79 years	63	*43.19	8.08	*30.51	*33.94	*34.59	*36.62	*42.58	*49.78	*51.71	*53.12	*54.60
80 years and over	15	*41.92	7.04	†	†	†	*34.99	*40.53	*46.10	†	†	†
20 years and over, age adjusted	793	39.82	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	14.70	4.30	9.77	10.36	10.90	11.68	13.48	16.66	18.67	20.87	23.97
12–15 years	709	26.59	6.01	16.84	19.09	20.56	22.64	26.51	30.24	32.40	34.61	37.43
16–19 years	635	30.46	5.10	23.00	24.08	25.50	26.59	29.94	33.62	36.08	37.06	39.23
20–29 years	603	32.33	5.41	23.65	25.89	26.59	28.47	31.92	35.96	38.18	39.72	41.78
30–39 years	654	32.54	5.21	24.37	25.95	27.37	28.94	32.37	36.06	37.82	39.10	40.78
40–49 years	753	32.74	5.95	23.58	25.71	26.94	28.44	32.30	36.21	38.80	40.55	42.35
50–59 years	613	30.21	5.75	21.36	23.05	24.40	25.93	29.95	34.40	36.09	37.81	40.19
60–69 years	620	29.40	5.95	20.81	22.36	23.55	25.20	28.76	33.56	35.48	37.16	39.87
70–79 years	343	28.00	6.73	17.68	20.42	21.72	23.51	27.07	31.66	34.43	36.35	40.73
80 years and over	164	28.58	6.02	19.07	20.69	22.92	24.44	27.93	32.21	34.72	35.73	38.13
20 years and over, age adjusted	3,750	31.30	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 30. Lumbar spine vertebrae 2 and 4 (L2, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	14.20	4.20	8.94	9.80	10.23	11.10	13.58	16.40	18.17	18.91	22.14
12–15 years	228	25.19	4.69	17.24	19.03	20.30	22.14	25.33	27.89	29.81	31.68	33.14
16–19 years	178	28.33	4.66	21.59	22.77	23.34	24.87	28.30	31.17	32.23	33.89	35.34
20–29 years	146	29.64	4.93	22.20	23.36	24.79	26.36	28.63	32.88	35.22	35.93	†
30–39 years	149	30.88	5.61	21.57	23.76	24.79	27.50	30.25	34.27	36.43	38.30	39.59
40–49 years	138	30.59	5.04	22.79	24.41	25.71	26.98	30.29	33.60	35.24	37.70	38.89
50–59 years	103	*27.61	6.27	*18.03	*20.20	*22.18	*23.55	*27.05	*30.35	*32.88	*34.34	*37.26
60–69 years	137	*25.54	5.33	*17.75	*18.79	*19.56	*21.56	*24.95	*28.94	*31.31	*32.13	*34.16
70–79 years	45	*23.92	5.64	†	*16.33	*17.29	*20.31	*23.65	*26.69	*29.21	*31.30	†
80 years and over	6	*23.44	10.15	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	724	28.61	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	14.53	3.99	9.99	10.51	11.00	11.75	13.31	16.32	18.23	20.47	23.44
12–15 years	179	26.74	6.32	16.53	18.61	20.22	22.41	26.54	30.28	33.13	34.87	37.85
16–19 years	175	30.78	4.97	23.42	24.57	25.71	26.87	30.31	33.71	36.12	37.12	39.05
20–29 years	240	32.89	5.23	25.59	26.50	27.66	28.94	32.22	36.40	38.59	39.84	41.84
30–39 years	265	32.99	5.01	24.83	26.73	27.66	29.25	33.06	36.51	37.83	38.94	40.98
40–49 years	354	32.99	5.77	24.00	26.51	27.25	28.98	32.54	36.38	39.17	40.56	41.84
50–59 years	290	30.65	5.64	21.64	23.16	24.44	26.00	30.48	34.61	36.51	37.97	40.23
60–69 years	261	29.58	5.87	21.24	22.68	23.63	25.30	28.78	33.81	35.65	37.19	39.80
70–79 years	214	28.18	6.76	18.37	20.55	21.93	23.51	27.09	31.66	34.57	36.58	40.77
80 years and over	123	28.70	5.63	19.18	21.02	23.10	24.79	28.49	32.31	34.25	35.37	37.71
20 years and over, age adjusted	1,747	31.66	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	16.29	4.89	10.04	11.10	11.67	12.68	14.97	19.19	21.20	23.34	25.18
12–15 years	226	27.99	5.44	18.95	20.53	22.25	24.41	28.04	31.20	33.90	35.75	36.58
16–19 years	203	31.85	5.05	24.03	25.70	26.61	28.16	31.29	35.24	36.75	38.58	41.17
20–29 years	130	33.53	5.67	24.40	26.31	27.59	29.25	33.32	37.37	39.92	41.70	42.97
30–39 years	147	33.95	5.39	26.00	28.28	28.92	29.90	33.24	37.17	39.26	40.31	41.92
40–49 years	165	34.43	6.72	24.65	26.24	27.72	29.72	33.76	37.83	40.92	42.51	45.82
50–59 years	142	31.24	5.87	22.39	25.07	25.63	27.22	30.30	34.37	37.97	39.44	41.27
60–69 years	149	31.58	6.17	20.93	24.15	24.94	26.92	31.45	35.05	37.78	39.57	43.04
70–79 years	54	*30.98	5.69	*21.02	*23.91	*25.44	*27.15	*30.67	*33.12	*35.61	*39.02	*41.75
80 years and over	24	*29.32	8.51	†	†	*22.24	*24.33	*26.30	*33.08	*38.10	*42.67	†
20 years and over, age adjusted	811	32.85	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 31. Lumbar spine vertebrae 3 and 4 (L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	15.22	3.11	10.79	11.40	11.97	13.07	14.96	17.16	18.21	19.17	20.45
12–15 years	788	25.80	7.88	15.18	15.96	17.13	19.24	25.01	30.80	34.12	36.68	39.56
16–19 years	776	37.57	6.82	27.00	28.72	30.62	33.05	37.30	41.89	44.62	46.62	48.32
20–29 years	715	39.26	6.44	29.04	31.29	32.75	34.51	38.83	43.38	45.98	47.76	50.63
30–39 years	730	38.30	6.65	27.88	29.85	31.30	33.23	38.22	42.99	45.02	46.49	49.87
40–49 years	699	39.05	7.00	28.28	30.13	31.65	34.11	38.89	43.72	45.75	47.69	51.55
50–59 years	620	39.60	7.86	26.87	29.45	31.58	34.22	39.17	44.98	47.91	50.12	52.93
60–69 years	573	40.82	7.65	28.61	31.44	33.05	35.77	40.66	45.42	48.96	51.34	52.86
70–79 years	377	41.50	8.89	28.15	30.94	32.86	35.50	39.83	46.94	51.56	53.87	57.12
80 years and over	183	42.13	10.47	27.36	30.24	31.68	34.04	40.83	46.69	51.13	55.34	62.01
20 years and over, age adjusted	3,897	39.54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	14.39	2.97	10.29	11.35	11.65	12.08	13.91	16.18	17.28	18.22	19.91
12–15 years	234	26.01	7.65	15.02	16.59	17.39	20.36	25.18	31.47	33.94	36.19	38.76
16–19 years	217	34.20	6.18	25.49	26.99	27.86	29.53	33.84	37.73	40.17	41.95	45.89
20–29 years	197	36.03	5.25	28.27	30.12	30.99	32.37	35.21	39.24	42.02	42.98	45.94
30–39 years	153	36.12	6.64	25.12	28.13	29.64	31.65	36.18	39.90	43.40	45.05	48.14
40–49 years	150	34.61	6.47	25.78	26.55	28.03	30.03	33.65	38.08	40.60	44.55	46.70
50–59 years	103	35.51	6.65	25.08	26.25	28.10	30.51	35.41	40.06	42.40	44.07	46.94
60–69 years	102	*37.75	8.27	*25.09	*26.53	*29.03	*32.67	*36.82	*42.07	*46.52	*49.46	*52.18
70–79 years	38	*36.13	7.68	†	*25.81	*26.31	*28.21	*36.13	*41.77	*44.92	*45.78	†
80 years and over	12	*35.85	7.49	†	†	†	*30.87	*32.80	*41.51	†	†	†
20 years and over, age adjusted	755	35.84	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	208	15.36	3.10	10.70	11.25	11.97	13.28	15.20	17.42	18.35	19.15	20.15
12–15 years	220	25.78	7.83	15.29	15.89	16.91	19.14	25.24	30.60	34.12	36.56	39.32
16–19 years	226	37.93	6.82	27.00	28.79	31.22	33.47	37.69	42.28	44.62	46.70	48.31
20–29 years	285	39.75	6.13	29.11	32.10	33.66	35.43	39.50	43.80	46.06	47.77	50.55
30–39 years	333	38.86	6.54	28.69	30.30	31.87	34.04	38.87	43.36	45.20	46.52	50.07
40–49 years	316	39.64	6.70	29.53	31.00	32.66	34.59	39.46	43.83	45.76	47.80	52.10
50–59 years	318	39.88	7.69	26.80	29.29	32.33	34.66	39.70	45.12	47.99	50.18	52.83
60–69 years	252	41.30	7.13	29.62	32.08	33.69	36.57	41.38	45.40	48.71	50.87	52.84
70–79 years	248	41.51	8.89	28.24	31.21	33.05	35.43	39.63	46.89	51.81	53.87	57.10
80 years and over	145	42.57	10.65	28.91	30.37	31.91	34.09	40.80	47.20	51.66	58.00	62.50
20 years and over, age adjusted	1,897	39.99	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	16.01	3.07	11.75	12.70	13.01	13.76	15.67	17.73	18.82	19.98	21.10
12–15 years	232	26.25	7.73	15.07	17.20	18.61	20.48	24.83	31.44	34.21	36.68	39.18
16–19 years	256	38.57	6.87	28.03	29.92	31.58	33.63	37.97	43.09	46.04	47.16	51.55
20–29 years	158	41.21	7.61	30.60	33.16	33.93	36.39	39.68	45.38	48.22	50.69	53.76
30–39 years	144	40.27	6.79	29.74	31.31	32.00	35.54	40.09	45.24	47.23	49.00	51.59
40–49 years	147	40.77	7.25	28.87	32.77	34.25	36.52	40.19	44.69	47.15	49.01	54.22
50–59 years	115	43.05	8.62	30.67	32.80	34.26	36.19	42.21	48.38	51.44	55.07	58.23
60–69 years	150	42.71	8.88	30.07	32.56	33.78	35.15	41.64	47.75	51.82	54.47	58.57
70–79 years	65	*45.49	8.84	*31.62	*34.23	*36.76	*38.10	*45.14	*51.58	*55.37	*57.38	*58.86
80 years and over	14	*44.41	7.80	†	†	†	*36.37	*42.76	†	†	†	†
20 years and over, age adjusted	793	41.86	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	742	15.66	4.59	10.38	11.01	11.52	12.47	14.43	17.98	20.01	22.26	25.59
12–15 years	708	28.31	6.33	17.98	20.31	21.97	24.21	28.09	31.93	34.42	36.68	38.98
16–19 years	633	32.48	5.40	24.53	25.70	26.85	28.54	31.97	35.83	38.25	39.51	41.62
20–29 years	597	34.46	5.61	25.63	27.76	28.68	30.28	34.09	38.41	40.50	42.06	44.26
30–39 years	658	34.65	5.46	26.03	28.14	29.29	30.99	34.45	38.29	40.22	41.35	43.66
40–49 years	763	34.80	6.20	25.05	27.71	28.59	30.43	34.01	38.48	41.05	42.95	46.23
50–59 years	619	32.32	6.01	22.89	24.89	26.23	28.05	32.05	36.34	38.35	40.34	42.82
60–69 years	620	31.30	6.29	22.30	24.00	25.05	26.92	30.52	35.35	37.78	40.24	42.36
70–79 years	349	30.12	7.05	19.52	21.86	23.29	25.58	29.10	34.39	36.65	39.68	42.63
80 years and over	174	30.43	6.71	18.56	21.55	23.69	26.16	29.86	34.72	38.06	39.54	40.80
20 years and over, age adjusted	3,780	33.37	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 31. Lumbar spine vertebrae 3 and 4 (L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	15.14	4.45	9.47	10.46	11.00	11.75	14.49	17.29	19.39	20.41	23.59
12–15 years	228	26.93	5.07	18.43	20.55	21.19	23.61	26.90	29.85	31.86	33.26	35.12
16–19 years	178	30.26	4.87	23.05	24.25	25.19	26.37	30.46	33.50	34.36	35.63	36.88
20–29 years	145	31.37	4.99	23.97	25.04	26.47	27.70	30.45	34.48	36.97	37.83	†
30–39 years	149	32.82	6.11	22.98	25.29	26.39	28.74	32.44	36.63	38.70	40.66	42.42
40–49 years	137	32.35	5.12	24.67	25.61	27.29	28.54	31.87	35.32	37.35	38.87	40.89
50–59 years	108	*29.27	6.47	*19.93	*22.48	*22.85	*25.18	*28.89	*31.86	*35.08	*36.08	*40.02
60–69 years	141	27.33	5.80	18.73	19.90	20.80	22.79	26.78	31.82	33.51	34.84	36.38
70–79 years	48	*25.81	5.81	†	*17.68	*19.32	*21.22	*25.88	*28.48	*31.66	*33.42	†
80 years and over	8	*23.26	8.46	†	†	†	†	*21.13	†	†	†	†
20 years and over, age adjusted	736	30.31	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	15.46	4.26	10.57	11.20	11.65	12.64	14.26	17.32	19.39	21.43	24.73
12–15 years	178	28.38	6.61	17.88	19.76	21.94	23.99	28.18	31.92	34.90	36.83	39.92
16–19 years	173	32.82	5.30	24.98	26.70	27.43	28.66	32.24	36.46	38.49	39.53	†
20–29 years	239	35.02	5.33	27.65	28.81	29.64	30.89	34.32	39.02	40.71	42.17	44.35
30–39 years	268	35.03	5.14	26.68	28.66	29.84	31.26	35.04	38.55	40.05	41.27	43.44
40–49 years	361	35.00	5.97	25.59	28.23	28.90	30.93	34.20	38.52	41.05	42.86	45.61
50–59 years	291	32.84	5.90	23.37	25.34	26.42	28.38	32.95	36.62	38.73	40.76	42.91
60–69 years	262	31.47	6.15	23.05	24.55	25.56	27.02	30.56	35.42	37.82	40.30	42.36
70–79 years	216	30.33	7.13	19.84	22.02	23.32	25.63	29.29	34.47	37.35	39.94	42.88
80 years and over	130	30.58	6.37	18.53	21.87	24.23	26.63	30.30	34.96	37.74	38.73	†
20 years and over, age adjusted	1,767	33.72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	17.37	5.22	10.69	11.92	12.36	13.46	16.23	20.37	22.73	24.35	26.83
12–15 years	226	29.94	5.75	20.20	22.06	23.82	26.03	29.92	33.34	36.23	38.19	39.35
16–19 years	203	34.02	5.32	25.67	27.27	28.55	30.21	33.77	37.40	39.65	41.11	43.63
20–29 years	128	36.13	6.07	25.88	27.93	29.57	31.80	36.08	40.38	43.11	43.83	46.19
30–39 years	147	36.50	5.72	28.38	29.58	31.21	32.47	35.59	40.27	41.73	42.99	45.49
40–49 years	168	36.79	7.14	26.41	27.77	29.49	31.58	35.87	40.94	43.99	45.65	48.71
50–59 years	140	33.28	5.94	24.09	26.63	27.79	28.83	32.48	36.75	40.07	42.32	44.02
60–69 years	145	33.95	6.75	22.79	25.21	26.65	29.21	33.57	38.02	39.99	43.03	†
70–79 years	55	*32.96	5.72	*23.96	*26.19	*26.77	*28.44	*32.53	*35.50	*36.61	*41.18	*43.17
80 years and over	23	*32.05	9.50	†	†	*23.08	*26.32	*28.73	*39.30	*41.74	†	†
20 years and over, age adjusted	806	35.23	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 32. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	18.58	3.94	13.07	13.61	14.50	15.74	18.16	20.74	22.22	23.42	25.09
12–15 years	784	32.51	10.42	18.52	19.52	20.83	23.62	31.35	39.45	43.64	46.36	52.44
16–19 years	774	47.90	9.12	33.85	36.33	39.00	42.13	47.34	53.50	57.71	60.14	63.03
20–29 years	713	50.13	8.34	37.04	39.57	41.29	44.43	49.67	55.22	59.14	61.06	64.82
30–39 years	727	49.96	8.83	36.20	38.62	40.33	43.79	49.34	55.63	58.91	61.39	65.65
40–49 years	684	51.14	9.18	37.38	39.53	41.56	44.33	51.12	57.28	60.32	62.64	67.91
50–59 years	601	51.29	10.29	35.13	38.02	40.75	43.70	50.57	57.47	61.93	64.98	69.27
60–69 years	581	52.12	9.93	36.22	40.15	42.16	45.88	51.59	58.80	62.52	65.18	68.99
70–79 years	356	53.29	11.54	36.02	39.85	41.77	45.25	51.94	59.63	64.88	71.19	74.01
80 years and over	186	53.56	13.25	35.74	38.72	40.44	44.32	52.37	59.55	65.26	69.94	77.35
20 years and over, age adjusted	3,848	51.12	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	17.65	3.76	12.38	13.84	14.15	14.93	16.98	19.64	21.12	22.27	24.85
12–15 years	231	32.66	9.94	18.00	19.64	20.56	24.90	31.89	39.94	43.49	45.16	47.77
16–19 years	216	44.00	8.48	31.10	34.03	35.58	37.74	43.01	48.69	52.26	54.46	58.50
20–29 years	193	46.35	6.92	36.03	37.37	39.02	41.18	46.04	50.95	53.47	55.07	57.05
30–39 years	152	46.95	8.78	33.44	35.26	37.99	40.84	46.01	51.71	55.61	58.89	63.94
40–49 years	145	45.53	7.96	34.39	35.92	36.61	39.42	44.91	51.09	54.27	56.25	58.82
50–59 years	100	46.02	8.57	32.31	34.55	37.12	41.17	45.02	51.34	54.65	57.54	59.72
60–69 years	103	*48.57	10.39	*32.79	*35.14	*37.00	*40.91	*47.58	*54.21	*58.39	*62.78	*67.22
70–79 years	31	*45.28	10.25	†	†	*33.30	*33.72	*46.03	*54.69	*56.41	*57.70	†
80 years and over	13	*46.81	9.62	†	†	†	*37.79	*42.53	*54.06	*55.26	†	†
20 years and over, age adjusted	737	46.41	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	18.79	3.95	13.06	13.50	14.28	16.24	18.39	21.08	22.72	23.45	25.00
12–15 years	221	32.66	10.48	18.67	19.56	20.65	23.40	32.17	39.26	44.37	46.20	52.49
16–19 years	225	48.38	9.14	33.88	37.26	39.17	42.59	47.69	53.80	58.40	60.52	62.90
20–29 years	282	50.70	7.91	37.87	41.04	42.47	45.37	50.69	55.70	59.29	61.02	63.77
30–39 years	337	50.89	8.69	36.97	39.24	42.24	45.32	50.50	56.65	59.18	62.18	66.05
40–49 years	310	52.01	9.07	38.78	40.28	42.44	44.76	51.91	58.05	61.03	63.26	68.24
50–59 years	313	51.78	9.97	35.94	39.53	41.32	44.45	51.22	58.27	62.44	65.22	69.30
60–69 years	249	52.99	9.36	38.07	40.58	44.09	46.64	52.33	59.12	63.43	65.42	69.25
70–79 years	228	53.58	11.70	36.18	39.53	42.21	45.31	52.10	59.79	65.70	71.94	74.12
80 years and over	143	54.11	13.53	36.31	38.85	41.07	44.86	52.52	60.17	66.05	70.64	78.88
20 years and over, age adjusted	1,862	51.82	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	19.28	3.99	13.84	15.15	15.57	16.69	18.83	21.34	22.69	23.93	26.08
12–15 years	231	32.41	10.00	18.19	20.75	22.67	24.83	31.18	39.04	42.63	45.77	48.59
16–19 years	256	48.57	8.98	34.51	37.77	38.91	42.62	47.51	55.29	58.45	59.60	64.76
20–29 years	162	52.33	10.04	38.47	40.63	43.13	45.04	51.74	56.63	62.16	65.49	69.33
30–39 years	141	51.58	9.15	36.92	39.07	41.46	44.46	50.92	57.25	61.24	64.16	67.02
40–49 years	144	52.44	9.12	39.48	41.77	43.45	46.11	51.82	58.57	60.55	63.96	68.55
50–59 years	114	54.71	12.01	37.86	39.44	42.56	45.92	53.30	62.13	66.22	70.80	76.20
60–69 years	159	53.36	11.73	36.35	39.72	41.84	44.82	52.74	59.15	66.00	69.13	73.51
70–79 years	68	*55.96	10.76	*40.21	*42.38	*44.31	*48.33	*53.50	*63.73	*69.16	*70.27	*72.03
80 years and over	18	*54.95	10.75	†	†	†	*43.46	*55.25	*62.95	†	†	†
20 years and over, age adjusted	806	53.09	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	18.85	5.72	12.23	13.21	13.90	14.96	17.27	20.93	24.67	26.95	31.44
12–15 years	714	34.68	8.16	21.69	23.80	26.47	29.10	34.70	39.42	42.49	44.93	48.52
16–19 years	661	39.43	7.06	28.88	30.83	32.03	34.35	38.77	43.67	46.72	48.27	51.66
20–29 years	623	42.11	7.37	30.67	32.37	34.09	36.68	42.04	46.55	49.79	51.82	54.77
30–39 years	647	42.37	7.17	31.16	33.39	35.31	37.31	42.22	47.34	49.80	51.11	54.23
40–49 years	771	42.75	7.98	30.65	32.83	34.71	37.12	42.34	47.55	50.85	52.92	56.11
50–59 years	610	39.06	7.80	27.82	29.83	31.10	33.33	38.58	44.18	47.15	49.37	51.59
60–69 years	618	37.47	7.82	26.51	28.02	30.13	31.80	36.31	42.23	46.05	47.84	51.72
70–79 years	362	35.65	8.76	23.44	25.46	27.04	30.28	34.81	40.22	43.90	46.18	52.44
80 years and over	179	35.81	7.92	23.26	25.16	27.58	30.73	35.02	40.80	43.36	46.07	49.22
20 years and over, age adjusted	3,810	40.53	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 32. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	18.13	5.62	11.59	12.32	12.93	13.96	16.92	20.81	23.19	24.77	29.13
12–15 years	231	32.59	6.39	21.84	24.61	25.84	28.18	32.90	35.70	39.06	41.61	43.73
16–19 years	184	36.68	6.43	27.33	28.69	29.80	31.52	36.69	40.96	42.93	43.95	46.17
20–29 years	148	38.71	6.48	28.71	30.60	31.56	34.36	38.04	42.70	45.66	47.24	48.60
30–39 years	149	40.24	7.60	28.24	30.56	32.00	35.12	40.38	45.30	47.71	49.31	51.23
40–49 years	140	40.29	6.35	29.91	31.65	33.30	35.56	39.73	44.31	46.28	48.28	51.48
50–59 years	103	*36.10	8.53	*24.24	*25.62	*27.09	*31.07	*35.49	*39.57	*41.84	*47.04	*50.34
60–69 years	132	*33.03	7.08	*22.70	*24.45	*25.49	*27.88	*31.89	*37.26	*40.46	*41.58	*44.29
70–79 years	44	*30.03	7.57	†	*20.48	*21.42	*24.06	*29.38	*33.12	*38.32	*40.54	†
80 years and over	8	*30.31	12.01	†	†	†	†	*26.46	†	†	†	†
20 years and over, age adjusted	724	37.28	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	18.72	5.35	12.84	13.54	14.29	15.43	17.06	20.69	23.60	26.62	29.97
12–15 years	181	35.03	8.52	21.59	23.46	26.50	29.04	34.95	39.77	42.91	45.33	50.48
16–19 years	188	39.70	6.80	29.58	31.57	32.45	34.91	38.88	44.16	46.76	48.11	51.43
20–29 years	256	42.88	7.04	31.75	33.77	35.68	37.48	42.63	46.98	50.24	52.06	55.17
30–39 years	263	43.01	6.97	31.78	34.36	35.87	37.54	43.11	47.63	49.86	51.16	54.40
40–49 years	358	43.10	7.83	31.24	33.30	35.22	37.65	42.85	48.11	50.88	52.88	56.11
50–59 years	289	39.66	7.71	28.43	30.11	31.18	33.43	39.52	44.53	47.14	49.64	51.94
60–69 years	262	37.74	7.77	27.06	28.54	30.45	32.14	36.38	42.59	46.47	47.88	51.74
70–79 years	222	35.87	8.83	23.92	25.52	27.06	30.43	35.09	40.31	43.94	46.21	52.92
80 years and over	135	35.90	7.52	23.57	25.26	28.18	30.92	35.27	40.90	43.03	46.03	47.54
20 years and over, age adjusted	1,785	41.02	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	20.70	6.54	12.82	13.82	14.44	16.12	18.89	24.09	27.52	29.71	34.04
12–15 years	226	36.21	7.51	23.61	26.06	27.76	31.06	36.06	41.17	43.44	46.50	48.75
16–19 years	207	41.14	7.55	30.24	30.93	33.22	36.08	40.04	45.80	48.74	50.46	†
20–29 years	132	43.57	7.86	29.97	31.88	35.10	38.07	43.69	48.71	51.79	53.31	55.76
30–39 years	143	43.93	7.22	33.08	35.60	37.12	38.74	43.20	48.56	51.09	52.58	55.06
40–49 years	170	44.61	9.12	32.36	34.13	34.97	38.33	43.68	50.15	54.43	55.91	58.47
50–59 years	139	40.11	7.75	28.12	30.34	32.30	34.59	39.56	44.75	49.10	50.32	53.38
60–69 years	151	40.07	8.08	27.28	30.40	31.64	34.35	40.05	44.22	48.82	50.90	54.00
70–79 years	68	*38.53	8.06	*27.95	*29.42	*31.28	*33.45	*36.71	*41.99	*45.99	*48.83	*54.46
80 years and over	26	*36.61	10.88	†	†	*28.77	*30.33	*33.28	*39.84	*47.76	*54.65	†
20 years and over, age adjusted	829	42.23	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 33. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	19.58	4.05	13.76	14.46	15.44	16.72	19.16	21.96	23.42	24.47	26.52
12–15 years	784	33.87	10.62	19.48	20.65	22.08	24.67	32.96	40.72	45.95	48.36	53.19
16–19 years	773	49.71	9.34	35.38	37.85	40.51	43.68	49.27	55.75	59.46	61.93	65.14
20–29 years	707	51.97	8.55	38.83	41.08	43.05	46.15	51.34	57.33	60.61	63.48	67.19
30–39 years	719	51.69	8.90	37.63	40.22	42.36	45.44	51.37	57.32	60.40	62.80	66.64
40–49 years	670	53.03	9.51	38.51	40.97	42.78	46.00	52.93	59.27	62.42	65.14	69.16
50–59 years	591	53.45	10.40	36.47	39.86	42.17	45.90	53.35	60.27	64.86	66.98	72.31
60–69 years	537	54.11	9.97	37.11	41.65	44.15	47.78	53.92	60.07	65.01	67.09	70.57
70–79 years	344	55.30	11.83	37.83	40.21	43.37	47.65	53.40	62.66	67.43	71.36	75.99
80 years and over	165	56.78	13.94	38.11	40.47	42.38	46.43	55.78	63.21	69.29	74.43	†
20 years and over, age adjusted	3,733	53.09	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	18.62	3.84	13.46	14.52	15.00	15.85	17.87	20.64	22.05	23.44	25.71
12–15 years	232	34.05	10.26	19.23	21.22	22.15	25.93	33.37	41.47	45.24	47.70	49.79
16–19 years	216	45.54	8.74	31.77	35.56	36.71	39.25	44.81	50.11	54.26	57.47	60.47
20–29 years	192	47.88	7.08	36.69	38.73	39.87	42.88	47.31	52.62	55.06	56.45	59.05
30–39 years	149	48.93	9.06	34.81	37.59	39.79	42.91	47.64	53.74	57.46	61.70	66.09
40–49 years	140	47.23	8.18	35.88	37.21	37.97	41.40	46.98	51.88	55.75	58.30	61.20
50–59 years	99	47.76	8.64	33.56	36.29	38.24	41.77	47.38	52.55	57.70	58.72	60.88
60–69 years	94	*50.53	10.90	*34.35	*36.48	*38.36	*42.97	*49.56	*56.68	*61.46	*65.21	*68.91
70–79 years	34	*47.82	10.23	†	*34.26	*35.07	*36.08	*47.80	*55.80	*59.64	†	†
80 years and over	12	*49.88	9.54	†	†	†	*42.79	*46.57	*56.40	*58.70	†	†
20 years and over, age adjusted	720	48.30	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	19.79	4.08	13.65	14.26	15.38	17.11	19.35	22.32	23.49	24.47	26.17
12–15 years	220	33.98	10.65	19.65	20.68	21.99	24.51	33.30	40.55	46.42	48.22	53.90
16–19 years	225	50.21	9.35	35.66	37.98	41.16	44.32	49.78	55.88	59.60	62.28	65.12
20–29 years	282	52.64	8.12	39.13	42.33	43.95	47.08	52.21	58.35	61.91	63.49	66.63
30–39 years	332	52.50	8.68	38.11	41.22	43.33	46.08	52.36	57.98	60.76	62.97	66.50
40–49 years	304	53.91	9.33	39.26	41.71	43.44	47.24	53.92	60.01	63.42	65.44	69.43
50–59 years	309	53.93	10.25	36.64	40.11	43.43	46.24	54.09	60.84	64.92	67.23	72.36
60–69 years	235	54.84	9.28	38.69	43.25	45.27	49.23	54.76	60.49	64.86	67.02	70.14
70–79 years	220	55.47	11.97	38.04	40.42	43.45	47.81	53.33	62.79	67.67	71.42	76.45
80 years and over	129	57.49	14.28	39.35	41.17	42.40	46.80	56.18	63.94	70.65	78.42	†
20 years and over, age adjusted	1,811	53.77	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	20.45	4.05	14.67	15.98	16.85	17.69	19.90	22.37	23.94	25.04	26.94
12–15 years	231	33.99	10.28	19.24	21.70	23.83	26.12	32.92	40.28	44.52	47.86	51.46
16–19 years	255	50.59	9.24	36.07	38.80	41.06	44.25	49.62	57.35	60.31	62.27	67.16
20–29 years	157	54.13	10.12	40.26	43.01	44.63	47.62	52.87	58.15	64.12	67.69	70.20
30–39 years	141	53.68	9.61	39.32	41.19	42.80	46.23	53.48	59.68	63.09	66.41	68.24
40–49 years	141	54.23	9.46	40.45	43.02	45.56	47.81	54.11	59.57	62.82	64.96	71.61
50–59 years	110	56.37	11.52	40.05	42.56	44.60	47.09	54.86	63.43	67.60	72.45	76.05
60–69 years	141	56.00	11.95	38.47	42.50	43.94	46.46	54.89	62.31	68.44	72.36	76.74
70–79 years	63	*59.09	10.89	*42.93	*45.37	*47.55	*51.05	*58.30	*65.89	*71.80	*73.19	*75.17
80 years and over	14	*56.30	9.64	†	†	†	*47.20	*55.04	†	†	†	†
20 years and over, age adjusted	767	55.11	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	19.92	5.90	13.05	14.10	14.75	15.91	18.12	22.37	25.41	28.57	32.74
12–15 years	708	36.27	8.39	22.84	25.58	27.77	30.81	36.04	41.19	44.74	47.25	50.86
16–19 years	634	41.43	7.09	31.02	32.68	34.15	36.46	40.85	45.91	48.78	50.43	54.01
20–29 years	597	44.00	7.55	32.15	34.53	35.99	38.51	43.56	48.59	52.07	54.09	56.65
30–39 years	642	44.29	7.31	32.88	35.31	36.79	39.14	43.91	49.46	51.79	53.33	56.11
40–49 years	746	44.55	8.25	31.80	34.84	36.41	38.62	44.39	49.28	53.04	55.03	58.20
50–59 years	594	40.96	8.02	29.00	31.28	32.41	34.87	40.66	46.59	49.40	51.59	54.02
60–69 years	595	39.68	8.03	28.00	30.09	31.54	33.54	38.89	45.46	48.31	50.17	53.48
70–79 years	324	37.62	9.28	24.30	26.99	29.28	31.54	36.41	42.54	45.84	48.69	55.72
80 years and over	157	38.39	8.19	24.94	27.76	30.35	32.91	36.93	43.66	46.80	48.44	51.01
20 years and over, age adjusted	3,655	42.48	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 33. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	19.23	5.78	12.30	13.23	13.83	14.92	18.10	21.91	24.53	26.08	30.43
12–15 years	228	34.25	6.50	23.61	25.73	27.38	29.84	34.56	37.55	40.19	43.95	45.21
16–19 years	178	38.43	6.49	29.26	30.38	31.25	33.70	38.18	42.34	43.97	46.55	48.27
20–29 years	145	40.52	6.88	30.15	32.04	33.56	36.02	39.11	44.82	47.99	49.78	†
30–39 years	149	42.00	7.80	29.21	32.62	33.57	36.72	41.56	46.76	50.04	51.84	53.50
40–49 years	137	41.90	6.90	30.88	33.19	34.96	36.96	41.53	46.25	48.48	51.27	53.22
50–59 years	99	*37.77	8.93	*25.04	*27.17	*29.22	*32.59	*36.96	*41.07	*44.34	*48.59	*52.10
60–69 years	126	*34.99	7.35	*24.18	*25.56	*26.83	*28.88	*34.43	*39.82	*42.52	*43.88	†
70–79 years	41	*32.02	7.64	†	*21.41	*23.44	*26.47	*31.28	*34.90	*39.96	*42.12	†
80 years and over	6	*32.17	14.37	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	703	39.05	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	19.74	5.51	13.48	14.44	15.06	16.01	17.98	21.78	24.57	27.91	32.12
12–15 years	179	36.58	8.83	22.79	25.32	27.46	30.55	36.34	41.30	45.30	48.18	52.58
16–19 years	174	41.91	6.86	31.81	33.77	34.59	36.90	41.23	46.04	48.92	50.42	54.02
20–29 years	237	44.84	7.24	34.37	35.90	37.46	39.67	44.29	48.89	52.77	54.69	56.91
30–39 years	258	44.97	7.04	33.68	36.00	37.41	39.83	44.91	49.83	51.85	53.38	56.39
40–49 years	349	44.92	8.05	32.52	35.48	37.14	39.13	44.80	49.76	53.17	55.05	57.99
50–59 years	284	41.58	7.90	29.45	31.65	32.46	35.26	41.59	47.03	49.94	51.82	54.11
60–69 years	254	39.94	7.97	28.70	30.97	32.02	33.62	38.90	45.79	48.52	50.44	53.47
70–79 years	205	37.81	9.36	24.32	27.22	29.37	31.58	36.49	42.66	46.18	48.77	55.97
80 years and over	119	38.43	7.67	25.00	28.28	30.62	33.47	37.54	43.64	46.50	47.44	50.45
20 years and over, age adjusted	1,706	42.99	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	21.96	6.72	13.38	15.06	15.65	17.15	20.34	25.74	28.75	31.30	34.85
12–15 years	225	37.94	7.59	25.79	27.61	29.91	33.06	37.97	43.13	45.51	48.69	49.74
16–19 years	203	43.17	7.25	32.71	33.94	35.41	38.27	42.24	48.14	50.28	52.64	†
20–29 years	129	45.34	8.01	32.12	34.13	37.30	40.17	45.05	50.58	53.76	56.23	58.42
30–39 years	143	45.87	7.58	35.32	37.13	38.62	40.68	45.39	50.41	53.13	54.52	57.82
40–49 years	164	46.53	9.34	33.08	34.85	37.74	40.00	45.43	52.19	55.63	58.11	62.11
50–59 years	134	42.39	8.00	29.49	33.80	34.86	36.77	41.24	46.94	51.21	53.24	†
60–69 years	145	42.38	8.32	28.44	31.90	33.30	36.61	42.27	46.81	50.09	53.58	57.62
70–79 years	53	*41.37	8.16	*29.81	*30.96	*33.06	*35.10	*41.23	*44.58	*49.13	*51.23	*58.28
80 years and over	23	*39.12	11.48	†	†	*28.66	*31.96	*34.70	*46.83	*51.00	†	†
20 years and over, age adjusted	791	44.33	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

† Standard error not calculated by SUDAAN.

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 34. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	20.51	4.23	14.38	15.27	16.12	17.64	20.23	23.07	24.62	25.80	27.91
12–15 years	785	35.21	10.95	20.36	21.46	22.84	25.81	34.19	42.31	47.06	50.24	54.99
16–19 years	774	51.54	9.54	37.14	39.22	41.99	45.35	51.12	57.53	61.60	63.85	66.83
20–29 years	706	53.79	8.84	40.07	42.92	44.65	47.89	53.20	59.54	63.16	65.47	69.07
30–39 years	716	53.00	9.14	38.84	41.44	43.28	46.33	52.98	59.10	62.16	64.40	68.95
40–49 years	670	54.32	9.65	39.64	41.79	43.65	47.40	54.40	60.88	63.38	66.01	70.87
50–59 years	585	54.83	10.77	37.51	40.57	43.74	47.14	54.62	62.25	66.74	68.90	74.32
60–69 years	536	55.88	10.38	39.00	42.71	45.57	49.05	55.70	61.83	66.92	69.14	73.03
70–79 years	339	57.05	12.16	39.64	42.01	44.38	49.09	54.81	63.84	69.79	75.32	79.19
80 years and over	166	58.13	14.43	38.90	41.40	43.46	47.49	56.83	65.86	71.52	77.11	85.95
20 years and over, age adjusted	3,718	54.58	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	19.49	4.00	14.05	15.13	15.90	16.37	18.77	21.96	23.29	25.05	26.94
12–15 years	232	35.44	10.52	19.94	22.08	22.96	27.58	34.63	42.41	46.46	49.77	51.96
16–19 years	217	47.04	8.71	34.31	36.84	37.95	40.78	46.39	51.67	55.09	57.58	62.99
20–29 years	192	49.56	7.39	39.05	40.39	42.22	44.17	48.57	54.22	57.09	59.27	62.83
30–39 years	149	50.02	9.24	35.77	37.49	41.10	43.36	49.95	55.15	58.90	62.72	68.16
40–49 years	143	48.16	8.54	36.07	37.90	38.70	42.06	47.61	52.74	57.82	60.83	62.78
50–59 years	98	49.03	9.06	34.78	36.31	39.45	41.87	48.95	54.39	58.98	60.51	63.31
60–69 years	96	*51.88	11.44	*34.61	*36.34	*38.99	*44.66	*50.59	*58.47	*63.88	*67.96	*71.68
70–79 years	33	*49.13	10.62	†	†	*35.84	*37.64	*49.53	*57.99	*61.49	*62.47	†
80 years and over	12	*50.20	10.08	†	†	†	*43.62	*46.59	*57.11	*59.33	†	†
20 years and over, age adjusted	723	49.51	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	20.71	4.24	14.24	14.97	15.98	17.91	20.45	23.39	24.76	25.89	27.41
12–15 years	220	35.26	10.97	20.51	21.46	22.58	25.56	34.54	42.02	47.23	50.12	55.11
16–19 years	225	52.05	9.56	37.22	39.25	42.74	45.73	51.96	57.79	61.69	63.98	66.78
20–29 years	281	54.42	8.41	40.06	43.96	45.73	48.71	53.89	60.00	63.69	65.44	68.89
30–39 years	330	53.78	8.93	39.12	42.15	44.15	47.22	53.88	59.56	62.38	64.50	68.94
40–49 years	302	55.20	9.37	40.42	42.80	45.45	48.10	55.18	61.32	64.08	66.10	71.25
50–59 years	305	55.29	10.55	37.51	40.67	44.55	47.98	55.04	62.46	67.24	69.17	74.32
60–69 years	231	56.64	9.64	41.05	43.98	47.23	50.51	56.57	62.36	66.57	68.96	72.98
70–79 years	217	57.15	12.23	40.20	42.26	44.55	49.07	54.48	63.84	69.90	75.37	79.44
80 years and over	131	58.81	14.71	39.49	41.95	43.45	47.93	56.94	66.39	71.72	80.54	†
20 years and over, age adjusted	1,797	55.25	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	21.42	4.21	15.53	16.80	17.43	18.36	20.97	23.63	25.03	26.48	28.21
12–15 years	232	35.53	10.69	19.94	22.91	24.56	27.27	34.29	42.41	46.39	49.99	53.62
16–19 years	255	52.65	9.49	37.80	40.53	42.96	46.07	51.64	59.46	63.23	64.29	69.73
20–29 years	158	56.26	10.57	41.63	44.65	46.14	48.99	54.66	61.43	66.35	70.23	73.48
30–39 years	140	55.31	9.55	40.69	42.79	44.40	48.57	55.29	61.53	65.65	68.18	71.45
40–49 years	140	56.26	9.73	42.20	45.56	47.16	49.36	56.04	62.13	64.89	68.32	73.98
50–59 years	108	58.51	12.01	41.93	43.67	45.89	48.46	56.53	66.17	70.90	74.94	78.75
60–69 years	140	57.72	12.12	40.23	44.66	45.25	47.87	56.70	64.17	70.22	75.05	79.01
70–79 years	64	*61.53	11.69	*43.28	*46.80	*49.92	*51.78	*59.73	*68.91	*74.84	*77.35	*78.78
80 years and over	13	*58.75	10.59	†	†	†	*48.10	*56.78	†	†	†	†
20 years and over, age adjusted	763	57.11	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	20.90	6.18	13.81	14.74	15.53	16.73	19.22	23.59	26.75	29.84	34.70
12–15 years	707	37.97	8.67	24.31	27.02	29.28	32.43	37.88	42.88	46.46	49.56	52.56
16–19 years	631	43.45	7.35	32.58	34.31	35.98	38.19	42.88	47.95	51.37	52.97	56.50
20–29 years	592	46.13	7.71	33.70	36.48	38.09	40.45	45.77	50.95	54.22	56.73	59.32
30–39 years	644	46.42	7.50	35.08	37.08	38.75	41.15	46.11	51.50	54.06	55.58	58.83
40–49 years	750	46.58	8.44	33.41	36.64	38.27	40.60	45.84	51.72	55.28	57.33	61.03
50–59 years	592	43.07	8.19	30.81	33.01	34.48	37.03	42.55	48.33	51.85	54.10	56.97
60–69 years	590	41.62	8.34	29.73	31.76	33.59	35.53	40.73	46.83	51.13	53.19	55.93
70–79 years	325	39.71	9.57	26.33	28.57	30.80	33.47	38.46	45.00	48.49	51.54	56.90
80 years and over	161	40.56	8.64	26.39	28.76	32.00	35.30	39.68	46.04	49.99	52.34	54.05
20 years and over, age adjusted	3,654	44.56	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 34. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	20.17	6.02	12.65	13.74	14.49	15.60	19.14	23.01	25.64	27.60	31.52
12–15 years	228	35.99	6.84	24.79	27.40	28.67	30.93	36.25	39.97	42.51	45.24	47.29
16–19 years	178	40.37	6.66	30.33	32.17	33.19	34.78	40.53	44.38	46.61	48.10	49.87
20–29 years	144	42.21	6.87	32.26	33.65	35.48	37.24	40.96	46.23	49.95	51.61	†
30–39 years	149	43.94	8.25	30.69	33.84	35.02	38.70	43.58	49.15	51.65	53.69	56.66
40–49 years	136	43.68	6.93	32.68	34.81	36.29	38.61	43.12	47.97	49.59	52.25	54.80
50–59 years	102	*39.38	9.12	*26.48	*28.98	*30.82	*33.66	*38.86	*42.47	*47.06	*49.77	*54.83
60–69 years	129	*36.77	7.84	*25.49	*27.26	*28.07	*30.59	*36.40	*42.92	*44.79	*45.93	*48.12
70–79 years	42	*33.90	7.90	†	*23.31	*24.87	*27.37	*33.93	*38.05	*42.79	*43.97	†
80 years and over	8	*31.19	12.10	†	†	†	†	*27.27	†	†	†	†
20 years and over, age adjusted	710	40.70	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	20.70	5.77	14.08	15.07	15.60	16.80	19.19	22.97	25.83	28.85	33.30
12–15 years	178	38.19	9.09	23.80	26.27	29.04	32.17	38.06	43.16	47.03	50.70	53.67
16–19 years	172	43.95	7.13	33.71	35.36	36.53	38.49	43.21	49.11	51.52	53.25	56.11
20–29 years	236	46.97	7.31	36.39	38.21	39.34	41.41	46.44	51.95	54.69	57.40	59.78
30–39 years	260	47.02	7.11	36.27	37.81	39.65	41.84	47.02	51.83	54.16	55.55	58.90
40–49 years	353	46.91	8.20	33.87	37.50	38.73	41.23	46.25	51.93	55.41	57.31	60.80
50–59 years	281	43.76	8.06	31.06	33.41	34.64	37.58	43.84	48.81	52.16	54.10	57.23
60–69 years	251	41.89	8.22	30.18	32.57	33.78	35.79	40.49	47.00	51.19	53.31	55.85
70–79 years	204	39.91	9.69	26.44	28.61	30.82	33.46	38.53	45.05	48.50	51.73	57.04
80 years and over	121	40.68	8.09	26.94	30.25	32.91	35.70	40.12	46.09	49.61	51.03	53.17
20 years and over, age adjusted	1,706	45.07	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	23.04	7.04	14.11	15.73	16.22	17.92	21.44	27.18	30.38	32.72	35.94
12–15 years	225	39.89	7.88	26.99	28.88	31.78	34.79	39.88	45.11	48.08	51.34	52.24
16–19 years	202	45.36	7.43	34.65	35.55	37.31	40.31	44.75	50.00	52.88	55.12	†
20–29 years	128	47.92	8.37	33.73	35.96	38.73	42.51	48.02	53.85	57.07	58.22	†
30–39 years	143	48.51	7.90	37.19	38.94	40.95	42.91	48.04	53.40	55.56	57.44	61.00
40–49 years	165	48.76	9.70	34.78	37.14	38.91	41.99	47.30	54.51	57.97	60.27	64.76
50–59 years	131	44.37	8.01	31.34	35.56	37.02	38.16	43.64	49.10	54.09	55.15	58.09
60–69 years	141	44.75	8.87	30.22	33.38	35.54	38.51	44.36	49.89	52.86	57.06	†
70–79 years	54	*43.31	8.05	*32.74	*33.25	*34.55	*37.48	*42.88	*46.45	*50.29	*53.54	*59.58
80 years and over	22	*42.07	12.42	†	†	*30.28	*35.09	*36.97	*52.07	*55.09	†	†
20 years and over, age adjusted	784	46.70	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 35. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	21.41	4.40	15.15	15.94	16.79	18.38	21.07	24.16	25.62	26.89	28.92
12–15 years	786	36.70	11.34	21.37	22.65	23.91	27.20	35.40	44.21	48.54	52.10	56.84
16–19 years	775	53.63	9.82	38.25	40.94	44.17	47.23	53.27	59.75	64.03	66.52	69.40
20–29 years	711	56.16	9.05	41.73	44.66	46.69	49.78	55.53	61.96	65.48	68.18	72.06
30–39 years	728	55.19	9.43	40.44	43.34	45.01	48.28	54.98	61.38	64.49	66.76	71.88
40–49 years	689	56.29	10.02	41.15	43.45	45.44	49.08	56.16	62.90	66.40	68.50	73.83
50–59 years	613	56.92	11.13	39.15	42.49	45.66	48.95	56.24	64.15	68.63	70.92	76.92
60–69 years	555	58.23	10.74	40.73	45.44	47.49	51.22	58.23	65.03	69.45	73.20	75.60
70–79 years	354	58.93	12.69	39.88	43.23	45.89	50.14	57.14	66.46	72.93	76.59	81.07
80 years and over	173	60.32	14.95	39.39	43.81	45.89	49.24	59.52	66.24	73.89	77.74	88.67
20 years and over, age adjusted	3,823	56.73	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	20.23	4.22	14.38	15.77	16.38	17.09	19.51	22.66	24.43	25.63	28.07
12–15 years	233	36.95	11.02	20.95	23.16	24.22	28.45	35.74	44.71	49.29	51.38	55.57
16–19 years	216	49.05	9.06	36.02	38.22	39.42	41.88	48.56	54.01	57.31	59.94	65.81
20–29 years	194	51.62	7.33	39.98	43.18	43.94	46.19	50.85	56.17	59.75	61.28	64.07
30–39 years	153	52.18	9.52	36.16	40.58	43.22	45.41	51.34	57.66	62.38	65.50	69.24
40–49 years	146	50.00	8.99	37.99	39.36	40.71	43.25	48.97	55.05	58.96	62.69	65.50
50–59 years	102	51.10	9.42	35.72	38.23	41.33	44.27	50.75	56.66	60.94	62.41	66.35
60–69 years	99	*54.17	11.49	*36.54	*39.10	*42.23	*46.87	*53.32	*59.95	*66.56	*69.71	*73.81
70–79 years	36	*51.52	11.41	†	*36.67	*37.02	*39.11	*52.49	*61.74	*64.20	†	†
80 years and over	12	*52.28	10.43	†	†	†	*43.89	*48.04	*60.17	*61.53	†	†
20 years and over, age adjusted	742	51.59	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	207	21.63	4.40	15.16	15.78	16.79	18.66	21.23	24.59	25.83	26.89	28.30
12–15 years	220	36.74	11.32	21.56	22.64	23.71	26.98	36.01	43.73	48.64	52.07	56.84
16–19 years	226	54.15	9.82	38.23	40.92	44.59	47.70	53.95	59.91	64.11	67.10	69.32
20–29 years	285	56.87	8.60	41.75	46.01	47.95	51.13	56.37	62.58	65.89	68.23	71.81
30–39 years	332	56.07	9.28	40.79	43.81	46.32	49.36	55.73	62.51	64.91	67.15	72.30
40–49 years	310	57.19	9.68	42.26	44.53	47.08	49.70	56.98	63.36	66.43	68.87	74.27
50–59 years	316	57.33	10.94	39.15	42.76	46.54	49.33	57.23	64.58	69.07	71.28	76.90
60–69 years	243	58.97	10.00	42.81	46.26	48.03	52.59	59.33	65.06	69.45	73.17	75.53
70–79 years	231	58.94	12.76	40.28	43.23	46.54	50.14	56.58	66.48	73.24	76.64	81.15
80 years and over	135	61.05	15.28	41.00	43.87	46.68	49.78	59.74	67.90	74.10	81.31	†
20 years and over, age adjusted	1,852	57.42	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	22.48	4.36	16.67	17.81	18.33	19.31	21.72	24.81	26.41	27.94	29.80
12–15 years	231	37.04	11.00	21.36	24.43	26.15	28.74	35.31	44.64	48.53	51.51	55.68
16–19 years	256	54.80	9.82	39.72	42.30	44.44	48.14	53.75	61.93	65.79	67.59	72.13
20–29 years	157	58.63	10.77	43.34	46.88	48.50	51.84	57.06	64.47	68.42	72.23	75.98
30–39 years	143	57.57	9.60	42.08	45.24	46.61	50.84	56.82	63.70	67.28	69.81	73.53
40–49 years	147	58.24	10.30	42.69	47.02	49.24	51.24	57.79	64.54	67.17	69.81	76.83
50–59 years	114	61.07	12.15	43.07	45.65	48.89	51.52	60.11	68.43	71.86	78.40	81.86
60–69 years	147	60.60	12.72	42.95	46.30	48.04	50.67	59.51	67.25	73.29	78.35	82.31
70–79 years	62	*64.21	12.09	*45.23	*49.03	*51.71	*53.83	*63.01	*73.55	*77.36	*80.09	*82.35
80 years and over	14	*62.47	10.96	†	†	†	*50.78	*60.95	†	†	†	†
20 years and over, age adjusted	784	59.54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	22.01	6.49	14.61	15.50	16.27	17.48	20.13	24.83	28.42	31.17	36.40
12–15 years	708	39.91	9.01	25.17	28.36	30.81	34.05	39.69	45.19	48.65	51.46	55.46
16–19 years	632	45.76	7.69	34.60	36.18	37.76	39.95	45.32	50.76	53.88	55.66	58.90
20–29 years	596	48.66	8.06	35.64	38.88	40.20	42.68	48.43	54.07	57.03	59.74	62.38
30–39 years	653	48.92	7.76	36.86	39.10	41.06	43.45	48.73	54.21	56.85	58.47	61.18
40–49 years	751	49.18	8.81	35.48	38.81	40.18	42.86	48.34	54.57	58.08	60.69	63.83
50–59 years	607	45.38	8.48	32.42	35.05	36.87	39.20	45.15	51.28	54.33	56.71	59.47
60–69 years	603	43.97	8.82	31.38	33.94	35.58	37.85	42.86	50.09	53.42	55.20	60.02
70–79 years	330	41.93	9.94	26.60	30.30	32.67	35.34	40.86	47.45	51.29	54.43	59.85
80 years and over	161	42.77	8.97	28.56	30.72	34.26	36.94	41.91	47.66	51.89	54.21	56.86
20 years and over, age adjusted	3,701	47.01	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 35. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	21.23	6.33	13.35	14.65	15.18	16.44	20.04	24.55	27.22	28.87	33.26
12–15 years	228	37.82	7.11	25.82	28.73	30.32	32.75	37.85	41.79	44.72	48.06	49.69
16–19 years	178	42.62	7.03	32.09	34.23	35.16	37.12	42.79	46.83	49.27	50.69	52.60
20–29 years	145	44.41	7.18	33.84	35.23	37.33	39.48	42.93	48.97	52.41	53.71	55.10
30–39 years	149	46.41	8.49	32.44	35.87	37.08	41.38	45.70	51.19	54.72	57.38	60.03
40–49 years	137	45.99	7.25	34.71	37.14	38.75	40.65	45.30	50.28	52.48	55.42	58.07
50–59 years	103	*41.50	9.32	*27.83	*30.69	*32.78	*35.91	*40.79	*45.12	*49.44	*51.49	*56.04
60–69 years	137	*38.23	7.96	*26.46	*28.04	*29.52	*32.42	*37.71	*43.30	*46.56	*47.92	*50.24
70–79 years	44	*35.86	8.48	†	*24.57	*25.86	*29.42	*35.51	*40.88	*42.89	*46.95	†
80 years and over	6	*34.89	14.72	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	721	42.94	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	21.78	6.02	14.92	15.72	16.57	17.69	19.84	24.14	27.52	30.67	34.96
12–15 years	178	40.11	9.43	24.83	27.61	30.44	33.70	39.79	45.28	49.49	51.82	56.54
16–19 years	173	46.22	7.49	35.09	37.18	38.59	40.21	45.75	51.11	54.25	55.97	58.88
20–29 years	239	49.53	7.71	38.69	40.27	41.83	43.74	48.90	54.81	57.48	60.05	62.53
30–39 years	265	49.53	7.43	38.14	40.02	41.78	44.03	49.79	54.62	56.89	58.32	61.19
40–49 years	353	49.53	8.55	35.69	39.48	40.87	43.42	48.95	54.79	58.15	60.69	63.50
50–59 years	287	46.08	8.34	32.66	35.67	37.04	39.62	45.97	51.62	54.74	56.81	59.65
60–69 years	252	44.29	8.65	32.27	34.31	35.69	37.99	42.88	50.31	53.58	55.47	59.76
70–79 years	204	42.24	10.02	28.24	30.37	32.93	35.33	41.07	47.76	51.79	54.54	60.12
80 years and over	121	42.93	8.33	28.75	32.15	34.83	37.60	42.56	47.74	51.48	53.32	56.49
20 years and over, age adjusted	1,721	47.55	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	24.35	7.38	15.03	16.52	17.29	18.81	22.53	28.74	31.94	34.48	38.34
12–15 years	226	42.07	8.21	28.13	30.89	33.14	36.67	42.39	46.99	50.67	53.95	54.94
16–19 years	202	47.90	7.72	36.55	38.09	39.66	42.51	46.88	53.07	55.68	57.97	†
20–29 years	127	50.68	8.60	36.04	38.98	41.39	44.38	50.70	57.20	59.91	61.39	65.20
30–39 years	146	51.22	7.94	39.59	42.10	43.48	45.78	50.64	56.01	58.96	60.32	63.06
40–49 years	165	51.71	10.02	37.70	39.35	41.19	44.75	50.36	57.31	61.52	64.22	68.62
50–59 years	139	46.63	8.42	33.31	37.18	38.55	40.55	45.70	51.46	57.85	58.86	61.32
60–69 years	143	47.31	9.35	31.79	35.39	37.79	40.56	46.92	52.52	55.48	60.17	†
70–79 years	53	*46.05	8.32	*32.86	*36.44	*37.18	*40.11	*45.90	*48.93	*52.18	*57.06	*62.25
80 years and over	23	*44.39	13.27	†	†	*31.77	*36.98	*38.96	*52.23	*57.70	†	†
20 years and over, age adjusted	796	49.36	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 36. Total proximal femur bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	18.15	4.85	11.05	12.55	13.29	14.49	17.76	20.99	22.92	24.24	26.64
12–15 years	778	32.55	9.56	18.50	20.78	22.30	25.09	31.82	38.97	42.69	45.11	48.64
16–19 years	762	43.36	8.11	30.19	32.59	35.16	37.70	43.39	48.30	51.46	53.66	57.65
20–29 years	722	43.72	7.47	32.37	34.86	36.63	38.50	42.91	48.08	51.52	53.75	56.94
30–39 years	736	43.09	7.59	32.21	33.59	35.47	37.79	42.40	47.67	50.65	53.17	57.11
40–49 years	721	44.21	7.41	32.70	34.79	36.55	39.41	44.08	48.54	51.35	53.90	56.46
50–59 years	670	43.94	7.89	31.05	34.48	36.39	38.20	43.72	49.21	51.77	53.76	56.88
60–69 years	689	43.47	7.72	31.77	33.42	35.33	37.95	43.21	48.34	51.63	53.90	55.77
70–79 years	487	43.48	7.83	31.57	32.92	35.23	37.79	42.99	48.43	51.03	53.42	57.65
80 years and over	265	41.78	7.92	30.02	31.67	32.93	36.28	41.36	46.91	49.52	51.64	55.53
20 years and over, age adjusted	4,290	43.59	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	206	17.63	4.46	11.53	12.56	13.06	14.40	17.44	19.84	22.06	23.61	26.03
12–15 years	232	32.80	9.42	18.69	20.93	22.49	26.20	31.85	39.15	42.70	44.81	48.96
16–19 years	212	40.83	7.69	30.30	32.21	33.32	35.77	38.94	45.43	49.15	52.46	54.29
20–29 years	200	42.03	6.00	32.76	34.39	35.66	37.80	41.24	45.63	48.20	50.30	52.92
30–39 years	153	42.16	6.68	31.75	34.13	35.02	37.69	42.02	45.83	48.59	51.43	†
40–49 years	154	41.77	6.79	30.55	32.97	34.89	37.45	41.31	45.58	48.60	50.39	53.77
50–59 years	111	41.14	7.81	28.82	31.42	32.85	35.39	40.46	47.01	49.11	51.65	53.74
60–69 years	118	42.35	7.74	31.31	33.34	34.48	36.55	41.47	46.25	50.10	53.14	57.57
70–79 years	47	*39.79	6.43	†	*31.34	*33.20	*35.82	*39.15	*43.44	*44.83	*47.83	†
80 years and over	14	*36.89	7.09	†	†	†	†	*35.87	*41.53	†	†	†
20 years and over, age adjusted	797	41.47	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	205	18.04	4.94	10.91	12.12	13.05	13.95	17.72	21.08	23.04	24.27	26.60
12–15 years	218	32.58	9.65	19.02	20.40	22.12	24.65	31.60	39.06	42.68	45.05	48.55
16–19 years	223	43.27	7.83	30.15	32.48	35.01	38.46	43.48	48.06	51.05	52.86	56.38
20–29 years	285	43.89	7.04	33.21	36.07	37.18	38.68	43.02	48.12	51.70	53.64	56.55
30–39 years	337	43.49	7.83	32.47	33.59	35.67	37.90	42.78	48.17	51.66	54.35	57.44
40–49 years	329	44.70	7.39	33.39	35.24	37.87	39.84	44.93	48.67	51.49	54.19	56.96
50–59 years	341	44.10	7.72	30.82	34.92	37.06	38.32	44.07	49.37	51.99	53.78	56.01
60–69 years	309	43.87	7.26	32.50	33.81	36.29	38.39	43.61	48.84	51.64	53.89	55.25
70–79 years	330	43.66	7.88	31.66	32.80	35.21	38.24	43.33	48.76	51.07	53.42	57.79
80 years and over	214	42.01	8.08	30.21	31.64	32.73	36.31	41.43	47.18	50.40	51.78	56.13
20 years and over, age adjusted	2,145	43.90	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	19.88	4.76	13.16	14.39	15.39	16.81	19.15	22.14	24.19	25.69	28.93
12–15 years	227	33.30	9.53	19.94	21.57	23.17	26.88	32.68	38.63	42.62	45.05	48.59
16–19 years	251	45.73	9.05	31.43	35.08	36.52	38.98	44.94	51.37	54.95	58.17	60.49
20–29 years	160	46.91	9.36	33.44	35.28	38.27	40.62	45.63	51.93	56.59	59.51	64.09
30–39 years	145	45.58	7.36	34.28	35.58	36.81	40.32	46.11	49.95	52.27	54.28	57.72
40–49 years	151	45.11	7.99	32.31	34.71	36.10	39.72	44.64	50.95	54.10	55.53	57.52
50–59 years	126	47.37	8.48	34.60	37.87	39.08	40.90	46.19	51.71	56.85	59.07	†
60–69 years	185	45.60	9.11	32.05	35.18	37.25	39.52	44.65	50.26	54.50	56.86	60.27
70–79 years	75	*45.28	7.94	*31.19	*34.79	*37.60	*40.42	*44.15	*49.72	*54.58	*56.80	*57.84
80 years and over	22	*42.55	6.22	†	*35.16	*36.24	*36.68	*41.35	*46.60	†	†	†
20 years and over, age adjusted	864	45.84	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	16.98	4.93	10.50	11.74	12.19	13.18	16.14	19.95	22.20	23.76	25.87
12–15 years	715	27.53	5.83	18.60	20.80	22.14	23.19	27.21	30.91	33.37	35.44	37.82
16–19 years	673	30.05	5.52	21.65	23.62	24.31	26.02	29.93	33.31	35.48	37.12	39.34
20–29 years	635	30.48	5.32	22.29	23.59	24.95	26.78	30.19	33.96	36.43	37.79	39.73
30–39 years	639	30.21	5.23	22.04	23.86	24.84	26.57	29.96	33.39	35.76	37.11	39.93
40–49 years	750	30.81	5.45	22.02	23.99	25.63	27.13	30.27	34.19	36.43	38.07	40.71
50–59 years	595	29.46	5.42	21.03	22.86	24.08	25.61	29.24	32.39	34.33	35.93	38.47
60–69 years	633	28.94	5.23	20.84	22.56	23.56	25.20	28.50	32.30	34.10	35.87	37.46
70–79 years	425	27.40	5.67	18.68	20.82	21.50	23.51	27.45	30.78	32.85	34.80	36.73
80 years and over	253	25.77	5.41	17.56	18.85	19.81	21.82	25.79	29.20	30.95	31.72	33.91
20 years and over, age adjusted	3,930	29.71	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 36. Total proximal femur bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	16.95	4.93	9.73	11.21	11.82	13.21	16.22	20.02	22.07	23.52	26.06
12–15 years	227	26.45	5.19	18.61	19.84	21.07	22.59	26.26	29.50	32.10	33.15	34.87
16–19 years	186	28.33	5.03	20.63	21.61	22.82	24.52	28.34	31.96	34.12	34.82	36.50
20–29 years	148	28.85	5.22	21.07	22.85	23.40	24.88	28.30	31.95	34.57	36.32	38.46
30–39 years	137	29.20	4.88	21.97	23.04	24.29	25.93	28.87	31.78	34.16	35.85	38.32
40–49 years	133	30.04	5.30	22.50	23.70	25.12	26.86	29.34	32.56	35.26	36.99	38.06
50–59 years	97	*28.69	6.17	*20.29	*21.88	*22.91	*24.16	*27.81	*31.76	*33.67	*35.37	*37.01
60–69 years	130	*27.46	5.04	*19.58	*21.21	*21.67	*24.00	*27.17	*30.33	*33.08	*34.16	†
70–79 years	49	*25.41	5.89	†	*17.37	*18.70	*20.45	*25.16	*28.99	*31.67	†	†
80 years and over	12	*22.27	5.29	†	†	†	†	*21.03	†	†	†	†
20 years and over, age adjusted	706	28.42	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	16.76	4.77	10.68	11.77	12.17	13.14	16.08	19.60	21.63	23.47	24.98
12–15 years	185	27.69	5.72	18.72	20.91	22.41	23.26	27.44	31.10	33.54	35.44	37.75
16–19 years	198	30.23	5.31	22.48	23.81	24.66	26.30	30.05	33.17	35.83	37.28	39.00
20–29 years	262	30.93	5.07	22.60	24.69	25.43	27.48	30.63	34.25	36.81	37.91	39.88
30–39 years	267	30.61	5.20	22.16	24.16	25.23	27.24	30.44	33.47	35.96	37.47	40.19
40–49 years	357	30.85	5.45	21.99	23.94	25.56	27.20	30.22	34.31	36.44	38.11	40.79
50–59 years	291	29.79	5.39	21.43	23.40	24.38	26.06	29.66	32.70	34.54	35.95	38.60
60–69 years	286	29.10	5.05	20.95	22.80	23.67	25.35	28.72	32.33	34.12	35.87	37.36
70–79 years	274	27.53	5.61	18.69	21.02	21.77	23.79	27.63	30.77	32.84	34.70	36.45
80 years and over	191	25.90	5.31	17.63	19.19	20.27	22.09	25.86	29.03	30.84	31.68	33.75
20 years and over, age adjusted	1,928	29.96	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	19.07	5.25	10.95	12.96	13.84	15.21	18.27	22.31	24.84	26.46	28.12
12–15 years	226	29.52	5.82	21.38	22.52	23.48	25.14	29.17	32.66	36.34	37.80	39.43
16–19 years	206	31.98	5.91	23.72	25.35	25.94	27.36	31.66	35.12	37.81	39.90	41.55
20–29 years	136	32.03	5.94	23.05	24.23	25.57	27.28	31.27	35.94	37.48	39.23	41.22
30–39 years	140	31.56	5.56	22.38	24.62	25.51	27.70	31.56	35.06	37.17	38.16	40.51
40–49 years	160	32.44	5.85	23.00	25.47	26.37	28.62	31.47	35.92	38.20	39.77	42.07
50–59 years	134	30.10	5.76	21.69	22.78	24.31	25.91	29.66	33.24	36.29	37.56	†
60–69 years	141	30.10	6.65	18.89	22.48	23.56	25.83	29.80	33.57	36.37	37.40	†
70–79 years	66	*28.51	6.05	†	*20.18	*22.26	*24.32	*28.07	*32.54	*33.89	*37.53	*37.96
80 years and over	31	*25.69	6.59	†	*17.71	*18.63	*19.03	*24.65	*31.39	†	†	†
20 years and over, age adjusted	808	30.93	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

† Standard error not calculated by SUDAAN.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 37. Femur neck bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	3.01	0.57	2.14	2.32	2.41	2.60	2.97	3.35	3.59	3.73	4.02
12–15 years	778	4.36	0.97	2.84	3.08	3.33	3.61	4.32	4.98	5.36	5.64	6.01
16–19 years	762	5.45	0.93	3.95	4.28	4.51	4.82	5.35	6.04	6.38	6.61	7.02
20–29 years	722	5.31	0.80	4.10	4.36	4.51	4.77	5.23	5.80	6.13	6.34	6.69
30–39 years	736	4.99	0.78	3.81	4.05	4.21	4.47	4.92	5.45	5.75	6.00	6.42
40–49 years	721	4.94	0.75	3.78	4.00	4.20	4.43	4.91	5.35	5.61	5.82	6.16
50–59 years	670	4.77	0.78	3.55	3.77	4.01	4.24	4.72	5.23	5.56	5.81	6.22
60–69 years	689	4.64	0.77	3.50	3.67	3.81	4.09	4.61	5.12	5.44	5.62	6.06
70–79 years	487	4.50	0.85	3.29	3.54	3.72	3.98	4.40	4.90	5.14	5.48	6.04
80 years and over	265	4.27	0.78	3.13	3.29	3.45	3.76	4.17	4.69	5.05	5.34	5.76
20 years and over, age adjusted	4,290	4.89	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	206	2.95	0.55	2.11	2.27	2.35	2.52	2.92	3.28	3.47	3.61	4.01
12–15 years	232	4.41	1.02	2.79	3.17	3.31	3.65	4.31	4.99	5.36	5.64	6.34
16–19 years	212	5.17	0.91	3.82	4.06	4.18	4.56	5.01	5.69	6.21	6.39	6.77
20–29 years	200	5.11	0.64	4.08	4.34	4.42	4.65	5.07	5.49	5.76	5.90	6.12
30–39 years	153	4.91	0.68	3.94	4.05	4.17	4.40	4.75	5.33	5.54	5.79	6.07
40–49 years	154	4.71	0.67	3.60	3.86	3.96	4.31	4.61	5.13	5.36	5.54	5.91
50–59 years	111	4.48	0.74	3.44	3.63	3.72	3.91	4.33	5.04	5.33	5.57	5.68
60–69 years	118	4.57	0.76	3.43	3.77	3.88	4.00	4.46	4.91	5.23	5.53	6.08
70–79 years	47	*4.25	0.60	†	*3.50	*3.70	*3.82	*4.24	*4.57	*4.76	*4.89	†
80 years and over	14	*3.82	0.71	†	†	†	*3.17	*3.60	†	†	†	†
20 years and over, age adjusted	797	4.69	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	205	3.01	0.58	2.13	2.29	2.37	2.59	2.96	3.33	3.62	3.73	4.02
12–15 years	218	4.35	0.95	2.84	3.04	3.33	3.57	4.33	4.97	5.27	5.58	5.99
16–19 years	223	5.42	0.89	3.89	4.33	4.54	4.83	5.34	6.01	6.29	6.47	6.91
20–29 years	285	5.31	0.75	4.14	4.36	4.55	4.78	5.25	5.79	6.15	6.34	6.65
30–39 years	337	4.99	0.77	3.77	4.08	4.24	4.46	4.93	5.45	5.75	5.98	6.45
40–49 years	329	4.96	0.75	3.79	4.04	4.25	4.47	4.94	5.37	5.63	5.78	6.11
50–59 years	341	4.78	0.76	3.55	3.77	4.03	4.28	4.73	5.22	5.54	5.77	6.21
60–69 years	309	4.66	0.73	3.52	3.68	3.83	4.14	4.62	5.14	5.42	5.61	6.02
70–79 years	330	4.49	0.85	3.27	3.53	3.71	3.96	4.40	4.88	5.14	5.45	5.96
80 years and over	214	4.29	0.79	3.14	3.29	3.46	3.77	4.20	4.69	5.10	5.44	5.77
20 years and over, age adjusted	2,145	4.90	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	3.22	0.53	2.45	2.63	2.69	2.90	3.18	3.48	3.69	3.84	4.07
12–15 years	227	4.45	1.02	2.90	3.32	3.45	3.75	4.34	4.98	5.46	5.86	6.22
16–19 years	251	5.73	0.99	4.25	4.43	4.75	5.01	5.67	6.40	6.78	7.05	7.30
20–29 years	160	5.69	0.98	4.30	4.48	4.70	4.97	5.59	6.22	6.68	6.93	7.55
30–39 years	145	5.38	0.84	3.93	4.38	4.65	4.82	5.33	5.84	6.23	6.47	6.83
40–49 years	151	5.15	0.86	3.83	4.16	4.28	4.63	5.03	5.62	6.11	6.30	6.66
50–59 years	126	5.15	0.87	3.74	4.11	4.24	4.58	5.07	5.69	6.11	6.37	6.53
60–69 years	185	4.94	0.91	3.62	3.95	4.03	4.27	4.86	5.51	5.81	6.10	6.59
70–79 years	75	*4.88	0.94	*3.49	*3.87	*4.08	*4.33	*4.75	*5.30	*5.62	*5.98	*6.40
80 years and over	22	*4.34	0.65	†	†	*3.74	*3.87	*4.06	*4.72	†	†	†
20 years and over, age adjusted	864	5.22	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	2.74	0.62	1.97	2.07	2.15	2.26	2.60	3.11	3.40	3.63	3.90
12–15 years	715	3.97	0.75	2.89	3.06	3.21	3.43	3.93	4.44	4.74	5.04	5.26
16–19 years	673	4.27	0.71	3.19	3.35	3.49	3.74	4.29	4.68	4.98	5.10	5.61
20–29 years	635	4.25	0.68	3.21	3.42	3.56	3.77	4.17	4.68	4.93	5.15	5.50
30–39 years	639	4.11	0.66	3.00	3.28	3.45	3.65	4.11	4.54	4.76	4.96	5.24
40–49 years	750	4.03	0.65	3.10	3.23	3.37	3.58	3.97	4.38	4.66	4.85	5.20
50–59 years	595	3.77	0.66	2.66	2.95	3.10	3.29	3.76	4.17	4.35	4.53	4.91
60–69 years	633	3.62	0.62	2.67	2.91	3.02	3.18	3.52	3.96	4.28	4.49	4.73
70–79 years	425	3.39	0.63	2.48	2.63	2.76	2.94	3.32	3.75	3.99	4.12	4.58
80 years and over	253	3.18	0.63	2.18	2.42	2.53	2.73	3.13	3.60	3.80	3.92	4.29
20 years and over, age adjusted	3,930	3.91	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 37. Femur neck bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	2.74	0.63	1.82	2.00	2.07	2.26	2.65	3.20	3.40	3.62	3.90
12–15 years	227	3.88	0.68	2.91	3.07	3.18	3.38	3.78	4.34	4.60	4.73	5.03
16–19 years	186	4.02	0.67	3.04	3.21	3.31	3.51	3.99	4.44	4.69	4.82	5.15
20–29 years	148	4.01	0.64	3.04	3.17	3.32	3.61	3.89	4.35	4.64	4.84	5.25
30–39 years	137	4.05	0.57	3.22	3.32	3.47	3.61	4.03	4.40	4.60	4.76	5.14
40–49 years	133	4.02	0.61	3.02	3.23	3.41	3.58	3.97	4.36	4.58	4.80	5.05
50–59 years	97	*3.75	0.75	*2.64	*2.85	*3.02	*3.22	*3.71	*4.12	*4.26	*4.50	*4.71
60–69 years	130	*3.49	0.56	*2.74	*2.87	*2.98	*3.11	*3.42	*3.72	*4.04	*4.29	*4.59
70–79 years	49	*3.20	0.65	†	*2.29	*2.42	*2.65	*3.25	*3.56	*3.90	*4.05	†
80 years and over	12	*2.72	0.51	†	†	†	†	*2.52	*2.87	†	†	†
20 years and over, age adjusted	706	3.80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	2.69	0.59	1.99	2.12	2.15	2.23	2.55	2.96	3.31	3.54	3.84
12–15 years	185	3.97	0.73	2.89	3.07	3.20	3.43	3.95	4.45	4.73	5.02	5.25
16–19 years	198	4.29	0.67	3.24	3.36	3.57	3.80	4.31	4.65	4.95	5.07	5.58
20–29 years	262	4.29	0.63	3.32	3.54	3.71	3.85	4.21	4.69	4.93	5.11	5.36
30–39 years	267	4.13	0.66	2.98	3.30	3.47	3.71	4.13	4.56	4.75	4.92	5.28
40–49 years	357	4.00	0.63	3.09	3.20	3.36	3.54	3.96	4.36	4.61	4.81	5.13
50–59 years	291	3.77	0.64	2.68	2.99	3.11	3.29	3.76	4.17	4.34	4.47	4.88
60–69 years	286	3.61	0.59	2.75	2.95	3.03	3.20	3.52	3.94	4.23	4.49	4.73
70–79 years	274	3.38	0.62	2.48	2.63	2.76	2.94	3.31	3.72	3.95	4.09	4.58
80 years and over	191	3.18	0.62	2.20	2.42	2.57	2.73	3.14	3.60	3.74	3.87	4.18
20 years and over, age adjusted	1,928	3.92	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	3.00	0.68	1.95	2.19	2.35	2.49	2.90	3.44	3.67	3.87	4.15
12–15 years	226	4.23	0.80	3.00	3.30	3.42	3.66	4.11	4.75	5.14	5.24	5.54
16–19 years	206	4.52	0.78	3.31	3.52	3.70	3.89	4.51	5.08	5.34	5.58	5.74
20–29 years	136	4.50	0.80	3.19	3.47	3.55	3.90	4.51	4.94	5.37	5.59	5.87
30–39 years	140	4.34	0.70	3.07	3.42	3.55	3.75	4.36	4.85	5.09	5.24	5.43
40–49 years	160	4.35	0.79	3.17	3.29	3.60	3.81	4.25	4.80	5.13	5.40	5.63
50–59 years	134	4.01	0.67	2.85	3.14	3.18	3.53	4.00	4.40	4.73	4.95	5.13
60–69 years	141	3.92	0.81	2.59	2.91	3.06	3.49	3.85	4.36	4.67	4.91	5.42
70–79 years	66	*3.72	0.68	*2.54	*2.72	*3.01	*3.33	*3.66	*4.06	*4.28	*4.74	†
80 years and over	31	*3.29	0.70	†	*2.39	*2.44	*2.57	*3.09	*3.94	*4.16	*4.18	†
20 years and over, age adjusted	808	4.18	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 38. Trochanter bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	3.61	1.36	1.91	2.03	2.24	2.60	3.40	4.45	4.89	5.45	6.28
12–15 years	778	7.95	2.72	3.94	4.52	5.06	5.83	7.73	9.76	10.89	11.47	12.50
16–19 years	762	10.64	2.34	7.12	7.67	8.22	9.04	10.44	12.22	13.02	13.79	14.60
20–29 years	722	10.30	2.11	7.20	7.79	8.25	8.89	10.13	11.54	12.56	13.13	13.73
30–39 years	736	10.05	2.07	7.08	7.50	8.11	8.57	9.86	11.16	12.10	12.74	13.90
40–49 years	721	10.46	2.03	7.38	7.82	8.34	9.08	10.35	11.73	12.51	13.07	14.01
50–59 years	670	10.59	2.24	6.91	7.73	8.26	8.98	10.52	12.01	13.07	13.63	14.36
60–69 years	689	10.64	2.16	7.24	8.11	8.50	9.16	10.55	12.05	12.97	13.46	14.23
70–79 years	487	10.81	2.35	7.36	7.96	8.39	9.21	10.53	12.15	13.19	13.85	15.09
80 years and over	265	10.50	2.40	7.10	7.51	8.04	8.56	10.30	12.14	12.92	13.51	14.57
20 years and over, age adjusted	4,290	10.41	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	3.47	1.21	1.70	2.05	2.23	2.62	3.22	4.19	4.60	4.95	5.66
12–15 years	232	7.85	2.67	3.64	4.59	5.03	5.77	7.76	9.59	10.37	11.06	12.22
16–19 years	212	9.65	2.25	6.56	7.05	7.38	7.96	9.28	11.06	12.31	12.85	13.34
20–29 years	200	9.69	1.67	7.04	7.62	8.03	8.53	9.43	10.76	11.43	11.89	12.49
30–39 years	153	9.57	1.78	6.80	7.35	7.77	8.26	9.40	10.75	11.17	11.95	12.52
40–49 years	154	9.62	1.84	6.84	7.19	7.55	8.36	9.48	10.99	11.54	12.03	12.65
50–59 years	111	9.55	2.04	6.68	6.92	7.46	7.94	9.21	10.81	11.56	12.65	13.34
60–69 years	118	9.94	1.95	7.08	7.33	7.75	8.60	9.79	10.95	11.87	12.77	13.42
70–79 years	47	*9.37	1.86	*6.30	*6.96	*7.64	*8.22	*9.23	*9.68	*11.29	*11.73	†
80 years and over	14	*8.93	2.16	†	†	†	*7.03	*8.30	†	†	†	†
20 years and over, age adjusted	797	9.59	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	3.57	1.38	1.90	2.01	2.09	2.48	3.40	4.50	4.94	5.45	6.32
12–15 years	218	8.03	2.79	3.90	4.51	5.04	5.74	7.75	9.99	11.27	11.66	12.60
16–19 years	223	10.66	2.24	7.16	7.75	8.28	9.18	10.45	12.21	13.00	13.50	14.53
20–29 years	285	10.34	2.01	7.37	7.89	8.31	8.94	10.20	11.65	12.64	13.18	13.62
30–39 years	337	10.24	2.12	7.11	7.67	8.23	8.70	10.02	11.37	12.26	12.98	14.23
40–49 years	329	10.61	2.01	7.54	7.90	8.46	9.18	10.42	11.82	12.68	13.08	14.08
50–59 years	341	10.67	2.17	6.91	7.98	8.52	9.11	10.59	12.08	13.07	13.68	14.30
60–69 years	309	10.80	2.09	7.44	8.40	8.58	9.27	10.69	12.15	13.04	13.48	14.54
70–79 years	330	10.90	2.36	7.37	8.03	8.41	9.21	10.68	12.34	13.26	13.89	15.10
80 years and over	214	10.62	2.42	7.19	7.56	8.15	8.71	10.63	12.18	13.01	13.73	14.64
20 years and over, age adjusted	2,145	10.54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	4.06	1.38	2.21	2.50	2.75	3.14	3.83	4.70	5.35	5.71	6.49
12–15 years	227	8.19	2.80	4.47	4.93	5.26	6.35	7.90	9.71	10.87	11.81	12.80
16–19 years	251	11.31	2.67	7.26	8.18	8.67	9.31	10.98	12.91	14.06	14.83	16.16
20–29 years	160	11.14	2.62	7.72	8.33	8.53	9.28	10.66	12.55	13.71	14.52	16.17
30–39 years	145	10.55	2.00	7.11	8.22	8.59	9.19	10.40	11.52	12.65	13.44	14.23
40–49 years	151	10.62	2.10	7.54	8.00	8.42	9.15	10.35	11.89	12.65	13.64	14.37
50–59 years	126	11.47	2.49	7.62	8.54	9.02	9.79	11.18	12.96	14.04	14.75	†
60–69 years	185	10.95	2.38	7.46	7.91	8.36	9.29	10.90	12.16	13.16	13.77	14.35
70–79 years	75	*11.17	2.40	*7.45	*7.96	*8.83	*9.40	*10.63	*13.09	*13.69	*14.55	*15.28
80 years and over	22	*10.03	1.94	†	†	*8.05	*8.41	*9.64	*11.31	†	†	†
20 years and over, age adjusted	864	10.88	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	3.72	1.40	1.99	2.18	2.37	2.64	3.40	4.52	5.24	5.65	6.33
12–15 years	715	6.61	1.66	4.33	4.69	4.95	5.42	6.32	7.67	8.34	8.77	9.49
16–19 years	673	7.17	1.54	4.78	5.26	5.55	6.08	7.18	8.07	8.64	9.18	9.90
20–29 years	635	7.00	1.48	4.88	5.19	5.46	5.97	6.89	7.83	8.46	8.86	9.73
30–39 years	639	6.93	1.42	4.86	5.17	5.36	5.82	6.88	7.83	8.39	8.77	9.49
40–49 years	750	7.23	1.55	4.92	5.38	5.70	6.12	7.15	8.11	8.64	9.22	9.92
50–59 years	595	6.87	1.50	4.71	5.14	5.43	5.88	6.75	7.62	8.08	8.68	9.48
60–69 years	633	6.85	1.48	4.55	4.99	5.29	5.80	6.76	7.75	8.23	8.73	9.72
70–79 years	425	6.60	1.64	4.19	4.62	4.88	5.46	6.44	7.63	8.18	8.78	9.25
80 years and over	253	6.28	1.49	4.06	4.40	4.68	5.21	6.15	7.31	7.79	8.40	8.87
20 years and over, age adjusted	3,930	6.93	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 38. Trochanter bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	3.69	1.37	1.75	2.01	2.20	2.69	3.56	4.46	5.06	5.66	6.37
12–15 years	227	6.18	1.45	4.08	4.51	4.68	5.17	6.01	7.11	7.59	7.87	8.35
16–19 years	186	6.59	1.35	4.46	4.85	5.18	5.51	6.70	7.32	7.67	8.37	8.86
20–29 years	148	6.54	1.35	4.71	5.09	5.17	5.44	6.34	7.32	7.89	8.09	8.68
30–39 years	137	6.56	1.34	4.64	4.89	5.25	5.62	6.34	7.41	8.30	8.59	8.98
40–49 years	133	6.86	1.40	4.69	5.32	5.46	5.90	6.73	7.52	8.01	8.50	9.70
50–59 years	97	*6.68	1.80	*4.34	*4.73	*5.10	*5.58	*6.52	*7.47	*7.98	*8.56	*9.18
60–69 years	130	*6.35	1.44	*4.27	*4.51	*4.68	*5.35	*6.15	*7.32	*7.89	*8.18	*8.64
70–79 years	49	*5.88	1.49	†	*3.79	*4.09	*4.81	*5.91	*6.82	*7.45	*7.55	*7.96
80 years and over	12	*5.38	1.23	†	†	†	†	*5.13	†	†	†	†
20 years and over, age adjusted	706	6.51	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	3.65	1.38	2.03	2.20	2.40	2.57	3.33	4.42	5.02	5.53	5.98
12–15 years	185	6.69	1.62	4.47	4.78	5.01	5.53	6.34	7.68	8.42	8.85	9.33
16–19 years	198	7.29	1.52	4.87	5.37	5.76	6.14	7.33	8.15	8.64	9.22	9.76
20–29 years	262	7.15	1.45	4.92	5.27	5.66	6.14	7.08	7.98	8.53	9.15	9.80
30–39 years	267	7.04	1.40	4.90	5.25	5.42	6.04	7.10	7.88	8.33	8.88	9.60
40–49 years	357	7.28	1.56	4.97	5.40	5.72	6.20	7.19	8.19	8.64	9.21	9.89
50–59 years	291	6.94	1.51	4.89	5.27	5.46	5.90	6.78	7.64	8.21	8.73	9.57
60–69 years	286	6.91	1.42	4.70	5.03	5.40	5.88	6.87	7.75	8.20	8.72	9.56
70–79 years	274	6.67	1.64	4.25	4.64	4.97	5.53	6.49	7.66	8.18	8.79	9.31
80 years and over	191	6.34	1.47	4.26	4.53	4.76	5.25	6.21	7.33	7.84	8.41	8.87
20 years and over, age adjusted	1,928	7.02	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	4.27	1.48	1.90	2.46	2.83	3.16	4.07	5.20	5.96	6.33	6.82
12–15 years	226	7.13	1.72	4.55	5.08	5.45	5.89	6.88	8.20	8.85	9.50	10.66
16–19 years	206	7.49	1.61	5.06	5.46	5.82	6.34	7.40	8.44	9.16	9.35	10.44
20–29 years	136	7.19	1.56	4.95	5.32	5.59	6.09	7.02	8.15	8.68	8.94	9.93
30–39 years	140	7.15	1.45	4.72	5.25	5.66	6.04	6.93	8.04	8.73	9.23	9.59
40–49 years	160	7.58	1.63	5.08	5.52	5.82	6.43	7.43	8.52	9.41	9.82	10.65
50–59 years	134	7.04	1.53	4.70	5.28	5.48	5.83	6.96	7.84	8.52	8.93	†
60–69 years	141	7.23	1.86	4.20	4.75	5.46	6.12	7.09	8.28	8.75	9.56	†
70–79 years	66	*6.65	1.68	*3.84	*4.72	*5.01	*5.45	*6.26	*7.99	*8.61	*9.02	*9.56
80 years and over	31	*5.98	1.78	†	†	*4.22	*4.37	*5.31	*7.40	*7.90	*8.56	†
20 years and over, age adjusted	808	7.14	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 39. Intertrochanter bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	11.52	3.09	7.00	7.79	8.31	9.26	11.24	13.28	14.60	15.51	16.98
12–15 years	778	20.24	6.11	11.75	12.81	13.72	15.50	19.77	23.99	26.51	28.47	31.17
16–19 years	762	27.26	5.30	18.84	20.52	21.53	23.54	27.14	30.45	32.45	34.41	36.51
20–29 years	722	28.10	5.11	20.55	21.66	23.17	24.73	27.56	30.76	33.24	35.50	37.31
30–39 years	736	28.04	5.26	20.49	21.70	22.55	24.25	27.54	31.23	33.46	34.58	37.44
40–49 years	721	28.80	5.16	20.92	22.30	23.61	25.43	28.77	31.74	33.69	35.36	37.90
50–59 years	670	28.58	5.35	19.33	22.18	23.46	24.91	28.44	31.99	33.83	35.15	37.79
60–69 years	689	28.18	5.33	19.93	21.24	22.78	24.36	27.98	31.51	33.83	34.81	37.13
70–79 years	487	28.16	5.23	19.94	21.43	22.59	24.48	27.89	31.63	33.19	34.71	37.82
80 years and over	265	27.00	5.39	19.20	20.02	21.35	23.21	26.34	30.05	32.31	33.59	36.21
20 years and over, age adjusted	4,290	28.28	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	206	11.21	2.86	7.19	7.80	8.29	9.19	10.84	12.61	13.97	15.07	16.23
12–15 years	232	20.53	5.97	11.86	13.03	14.22	16.23	19.61	24.48	26.92	28.50	31.55
16–19 years	212	26.00	4.95	19.31	20.68	21.05	22.65	25.03	28.83	31.61	33.59	34.90
20–29 years	200	27.22	4.20	21.08	21.72	22.93	24.47	26.88	29.57	31.28	33.36	35.57
30–39 years	153	27.67	4.73	20.26	22.25	22.90	24.12	27.27	30.28	31.76	33.70	†
40–49 years	154	27.43	4.85	19.92	21.99	22.48	23.92	26.89	30.35	31.80	33.43	36.50
50–59 years	111	27.10	5.50	18.34	19.97	20.82	23.15	27.21	30.49	32.73	33.82	35.43
60–69 years	118	27.83	5.52	20.63	21.58	22.27	23.56	26.60	30.38	33.61	35.87	39.18
70–79 years	47	*26.17	4.44	†	*20.66	*20.99	*22.88	*25.37	*27.52	*30.99	*31.98	†
80 years and over	14	*24.13	4.82	†	†	†	†	*22.70	*28.28	†	†	†
20 years and over, age adjusted	797	27.18	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	205	11.45	3.13	6.91	7.62	8.21	8.88	11.31	13.35	14.64	15.51	16.62
12–15 years	218	20.19	6.14	11.94	12.75	13.69	14.88	19.70	23.96	26.50	28.10	31.05
16–19 years	223	27.17	5.16	18.82	20.41	21.41	23.56	27.28	30.14	31.77	33.30	36.34
20–29 years	285	28.23	4.89	21.01	22.43	23.56	24.85	27.61	30.78	33.35	35.50	36.81
30–39 years	337	28.24	5.45	20.71	21.80	22.55	24.23	27.56	31.33	33.93	35.53	38.32
40–49 years	329	29.12	5.14	21.14	22.55	23.88	25.97	29.03	31.86	33.74	35.47	37.91
50–59 years	341	28.65	5.27	19.14	22.59	23.60	25.05	28.64	32.00	33.88	35.13	37.80
60–69 years	309	28.40	5.01	20.32	21.85	22.99	24.64	28.14	31.67	33.85	34.72	36.43
70–79 years	330	28.26	5.28	19.91	21.34	22.46	24.50	28.09	31.73	33.42	34.70	37.86
80 years and over	214	27.09	5.50	19.16	19.95	21.35	23.25	26.30	30.30	32.50	33.73	36.25
20 years and over, age adjusted	2,145	28.46	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	12.59	3.05	8.50	9.10	9.66	10.61	11.97	14.18	15.57	16.52	18.72
12–15 years	227	20.66	5.97	11.77	13.38	14.35	16.51	20.49	24.16	26.10	28.04	31.23
16–19 years	251	28.68	5.87	18.99	21.78	22.47	24.33	27.88	32.49	35.07	36.11	38.63
20–29 years	160	30.07	6.31	20.68	21.75	23.94	26.14	29.34	32.74	36.94	38.04	41.20
30–39 years	145	29.64	5.00	21.84	22.63	23.57	26.07	29.80	32.94	34.29	35.03	37.35
40–49 years	151	29.33	5.67	20.04	21.95	23.34	25.88	29.10	33.17	35.31	37.43	38.68
50–59 years	126	30.73	5.74	22.56	24.08	24.93	26.31	30.07	33.96	36.41	38.28	40.54
60–69 years	185	29.70	6.33	19.95	23.03	24.04	25.40	29.06	32.87	36.17	37.63	40.42
70–79 years	75	*29.22	5.21	*20.61	*22.45	*23.72	*26.27	*28.33	*31.88	*34.86	*36.46	*38.21
80 years and over	22	*28.17	4.55	†	†	*22.88	*24.73	*27.65	*31.42	†	†	†
20 years and over, age adjusted	864	29.72	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	10.51	3.04	6.27	7.12	7.55	8.11	10.11	12.40	13.61	14.63	15.96
12–15 years	715	16.94	3.70	11.40	12.67	13.31	14.23	16.56	19.22	20.78	21.60	23.66
16–19 years	673	18.59	3.62	13.25	14.32	14.83	16.06	18.28	21.06	21.92	23.33	24.87
20–29 years	635	19.22	3.53	13.79	14.59	15.38	16.82	18.91	21.58	23.30	24.06	25.27
30–39 years	639	19.16	3.55	13.66	14.94	15.70	16.69	19.01	21.21	22.85	23.86	25.55
40–49 years	750	19.55	3.65	13.61	14.97	16.12	17.15	19.23	21.72	23.32	24.44	25.92
50–59 years	595	18.82	3.64	13.10	14.53	15.26	16.14	18.64	20.95	22.24	23.25	25.06
60–69 years	633	18.47	3.47	13.05	14.05	14.90	16.02	18.37	20.58	22.32	23.28	24.46
70–79 years	425	17.40	3.80	11.32	12.89	13.53	14.69	17.19	19.66	21.17	22.29	23.87
80 years and over	253	16.31	3.75	10.68	11.58	12.45	13.77	16.21	18.54	19.58	20.52	21.67
20 years and over, age adjusted	3,930	18.85	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 39. Intertrochanter bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	10.51	3.08	6.09	6.98	7.38	8.23	10.17	12.44	13.60	14.21	16.01
12–15 years	227	16.37	3.32	11.42	12.01	12.83	13.82	16.40	18.20	20.05	20.71	22.16
16–19 years	186	17.71	3.37	12.54	13.23	14.03	15.05	17.55	20.24	21.43	22.13	23.40
20–29 years	148	18.30	3.54	12.99	13.98	14.82	15.64	18.01	20.24	21.96	22.79	24.58
30–39 years	137	18.58	3.32	13.62	13.95	15.36	16.60	18.31	20.38	21.67	22.60	24.54
40–49 years	133	19.15	3.59	13.93	15.06	16.07	17.21	18.38	20.86	22.43	23.33	24.74
50–59 years	97	*18.25	3.89	*12.87	*13.65	*14.15	*15.58	*17.75	*20.46	*21.89	*22.62	*24.56
60–69 years	130	*17.60	3.35	*12.40	*13.43	*13.93	*15.25	*17.16	*19.60	*21.47	*22.10	*22.99
70–79 years	49	*16.32	4.07	†	*10.93	*11.69	*13.20	*16.19	*18.63	*20.21	†	†
80 years and over	12	*14.17	4.01	†	†	†	†	*13.01	†	†	†	†
20 years and over, age adjusted	706	18.11	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	10.40	2.93	6.28	7.18	7.55	8.02	10.03	12.34	13.29	14.41	15.41
12–15 years	185	17.01	3.65	11.37	12.91	13.37	14.39	16.61	19.37	20.65	21.54	23.61
16–19 years	198	18.64	3.47	13.47	14.43	15.15	16.12	18.35	20.94	21.83	23.32	24.74
20–29 years	262	19.48	3.36	14.18	15.26	15.81	17.11	19.23	21.73	23.47	24.02	25.27
30–39 years	267	19.43	3.56	13.67	15.19	15.98	16.89	19.13	21.44	23.01	24.39	25.90
40–49 years	357	19.56	3.64	13.58	14.74	15.92	17.17	19.22	21.78	23.41	24.46	25.90
50–59 years	291	19.07	3.61	13.37	14.80	15.60	16.54	18.97	21.18	22.73	23.45	25.09
60–69 years	286	18.57	3.39	13.15	14.12	14.94	16.13	18.50	20.84	22.32	23.29	24.44
70–79 years	274	17.47	3.74	11.25	13.18	13.63	15.04	17.24	19.66	21.17	22.24	23.74
80 years and over	191	16.37	3.68	10.84	11.77	12.73	13.91	16.24	18.52	19.48	20.15	21.57
20 years and over, age adjusted	1,928	19.02	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	11.79	3.25	6.67	7.90	8.69	9.42	11.19	13.85	15.54	16.53	17.46
12–15 years	226	18.15	3.65	13.08	13.92	14.60	15.47	17.40	20.21	22.10	23.44	24.62
16–19 years	206	19.95	3.95	14.80	15.26	16.12	16.69	19.68	22.27	23.61	25.23	26.70
20–29 years	136	20.33	4.04	14.25	14.91	15.92	17.41	19.72	23.05	24.48	25.46	28.16
30–39 years	140	20.06	3.80	13.85	15.49	16.12	17.49	20.01	22.17	23.52	24.50	26.89
40–49 years	160	20.50	3.94	14.24	15.77	16.65	17.98	20.04	22.90	24.29	25.22	27.16
50–59 years	134	19.05	4.02	13.07	14.41	14.82	16.12	18.62	21.13	23.14	24.63	25.84
60–69 years	141	18.93	4.29	12.16	14.15	14.82	16.15	18.72	21.00	23.26	24.59	†
70–79 years	66	*18.12	4.13	†	*12.75	*13.49	*15.11	*17.76	*20.37	*23.03	*23.72	*24.39
80 years and over	31	*16.42	4.69	†	*10.24	*11.11	*12.39	*16.11	*19.50	†	†	†
20 years and over, age adjusted	808	19.60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

† Standard error not calculated by SUDAAN.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

Table 40. Ward's triangle bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	0.83	0.16	0.57	0.62	0.65	0.70	0.81	0.95	1.01	1.06	1.12
12–15 years	778	1.00	0.21	0.67	0.74	0.77	0.84	0.99	1.14	1.22	1.28	1.34
16–19 years	762	1.12	0.23	0.77	0.82	0.87	0.94	1.10	1.27	1.37	1.42	1.54
20–29 years	722	1.03	0.22	0.72	0.77	0.81	0.87	0.99	1.16	1.25	1.34	1.44
30–39 years	736	0.89	0.20	0.60	0.64	0.68	0.74	0.88	1.02	1.10	1.15	1.24
40–49 years	721	0.80	0.19	0.53	0.58	0.61	0.67	0.77	0.90	1.00	1.08	1.16
50–59 years	670	0.73	0.18	0.46	0.52	0.55	0.59	0.71	0.82	0.91	0.97	1.09
60–69 years	689	0.66	0.18	0.41	0.45	0.47	0.52	0.63	0.75	0.84	0.91	0.99
70–79 years	487	0.60	0.17	0.36	0.40	0.43	0.48	0.57	0.67	0.76	0.81	0.90
80 years and over	265	0.55	0.18	0.28	0.34	0.38	0.42	0.52	0.64	0.73	0.78	0.88
20 years and over, age adjusted	4,290	0.81	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	0.82	0.15	0.56	0.60	0.64	0.70	0.80	0.95	0.99	1.04	1.08
12–15 years	232	1.03	0.23	0.66	0.75	0.80	0.86	0.99	1.15	1.25	1.35	1.45
16–19 years	212	1.12	0.21	0.79	0.85	0.90	0.95	1.08	1.26	1.34	1.37	1.49
20–29 years	200	1.02	0.18	0.75	0.80	0.82	0.88	0.99	1.12	1.22	1.27	1.32
30–39 years	153	0.92	0.19	0.65	0.68	0.72	0.76	0.89	1.03	1.10	1.13	1.26
40–49 years	154	0.82	0.17	0.55	0.61	0.64	0.69	0.79	0.94	0.98	1.03	1.08
50–59 years	111	0.71	0.18	0.44	0.50	0.53	0.59	0.68	0.83	0.91	0.93	1.03
60–69 years	118	0.69	0.17	0.50	0.52	0.53	0.55	0.66	0.77	0.86	0.91	0.97
70–79 years	47	*0.59	0.14	†	*0.45	*0.46	*0.48	*0.56	*0.64	*0.72	*0.79	*0.87
80 years and over	14	*0.47	0.14	†	†	†	*0.32	*0.43	*0.52	*0.59	†	†
20 years and over, age adjusted	797	0.81	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	0.83	0.16	0.58	0.62	0.65	0.70	0.81	0.95	1.01	1.04	1.09
12–15 years	218	0.99	0.20	0.67	0.74	0.77	0.83	0.98	1.14	1.20	1.26	1.32
16–19 years	223	1.11	0.23	0.77	0.82	0.86	0.93	1.08	1.26	1.33	1.41	1.54
20–29 years	285	1.02	0.21	0.69	0.76	0.79	0.86	0.98	1.15	1.24	1.32	1.43
30–39 years	337	0.87	0.19	0.58	0.63	0.65	0.70	0.85	1.00	1.07	1.12	1.19
40–49 years	329	0.79	0.19	0.51	0.57	0.60	0.66	0.76	0.89	0.99	1.07	1.16
50–59 years	341	0.73	0.17	0.46	0.52	0.56	0.59	0.71	0.81	0.91	0.96	1.08
60–69 years	309	0.65	0.17	0.40	0.44	0.47	0.51	0.61	0.74	0.82	0.88	0.97
70–79 years	330	0.59	0.18	0.35	0.39	0.42	0.46	0.56	0.67	0.75	0.80	0.89
80 years and over	214	0.55	0.18	0.27	0.35	0.38	0.42	0.51	0.63	0.71	0.79	0.88
20 years and over, age adjusted	2,145	0.80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	0.91	0.18	0.64	0.67	0.71	0.77	0.89	1.02	1.09	1.16	1.24
12–15 years	227	1.04	0.23	0.62	0.76	0.81	0.89	1.03	1.18	1.26	1.33	1.44
16–19 years	251	1.18	0.23	0.81	0.87	0.92	1.01	1.16	1.33	1.42	1.48	1.56
20–29 years	160	1.12	0.24	0.77	0.83	0.87	0.93	1.08	1.25	1.40	1.48	1.59
30–39 years	145	1.01	0.24	0.68	0.73	0.77	0.83	0.96	1.15	1.25	1.33	1.45
40–49 years	151	0.87	0.22	0.58	0.63	0.65	0.70	0.83	1.00	1.11	1.16	1.30
50–59 years	126	0.82	0.22	0.49	0.56	0.59	0.66	0.78	0.94	1.06	1.11	1.20
60–69 years	185	0.76	0.23	0.46	0.49	0.53	0.59	0.70	0.90	0.98	1.06	1.14
70–79 years	75	*0.69	0.16	*0.42	*0.45	*0.54	*0.58	*0.67	*0.79	*0.83	*0.88	*0.94
80 years and over	22	*0.59	0.17	†	†	*0.42	*0.46	*0.53	*0.66	†	†	†
20 years and over, age adjusted	864	0.90	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	0.74	0.17	0.51	0.55	0.57	0.61	0.71	0.83	0.91	0.97	1.10
12–15 years	715	1.01	0.22	0.67	0.74	0.80	0.86	0.98	1.15	1.25	1.29	1.39
16–19 years	673	1.05	0.20	0.76	0.80	0.84	0.89	1.03	1.19	1.26	1.33	1.42
20–29 years	635	1.02	0.21	0.69	0.76	0.81	0.87	1.02	1.14	1.22	1.28	1.38
30–39 years	639	0.92	0.20	0.61	0.68	0.71	0.78	0.90	1.05	1.13	1.20	1.27
40–49 years	750	0.84	0.20	0.56	0.59	0.63	0.68	0.81	0.95	1.04	1.12	1.20
50–59 years	595	0.72	0.19	0.45	0.50	0.53	0.57	0.70	0.84	0.93	0.99	1.08
60–69 years	633	0.63	0.18	0.39	0.43	0.45	0.50	0.59	0.71	0.80	0.87	0.99
70–79 years	425	0.56	0.17	0.32	0.37	0.40	0.44	0.52	0.65	0.73	0.78	0.86
80 years and over	253	0.49	0.15	0.26	0.31	0.34	0.38	0.45	0.56	0.62	0.72	0.81
20 years and over, age adjusted	3,930	0.81	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 40. Ward's triangle bone mineral content (gm) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	0.77	0.18	0.53	0.56	0.59	0.62	0.73	0.87	0.95	1.03	1.13
12–15 years	227	1.03	0.22	0.67	0.72	0.79	0.86	1.04	1.17	1.27	1.32	1.37
16–19 years	186	1.04	0.19	0.73	0.81	0.86	0.90	1.00	1.17	1.25	1.29	1.33
20–29 years	148	1.01	0.20	0.70	0.74	0.77	0.85	1.00	1.14	1.19	1.24	1.35
30–39 years	137	0.95	0.17	0.67	0.74	0.76	0.81	0.92	1.05	1.13	1.20	1.27
40–49 years	133	0.87	0.19	0.59	0.65	0.68	0.74	0.86	0.97	1.06	1.12	1.21
50–59 years	97	*0.74	0.21	*0.46	*0.53	*0.56	*0.57	*0.71	*0.85	*0.92	*0.98	*1.12
60–69 years	130	*0.62	0.15	*0.36	*0.44	*0.47	*0.51	*0.60	*0.69	*0.77	*0.80	*0.86
70–79 years	49	*0.53	0.15	*0.29	*0.31	*0.35	*0.39	*0.51	*0.63	*0.67	*0.72	†
80 years and over	12	*0.45	0.16	†	†	†	†	*0.40	†	†	†	†
20 years and over, age adjusted	706	0.82	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	0.72	0.15	0.50	0.55	0.56	0.60	0.69	0.81	0.88	0.93	1.03
12–15 years	185	1.01	0.22	0.68	0.75	0.80	0.84	0.97	1.14	1.23	1.28	1.40
16–19 years	198	1.04	0.19	0.75	0.80	0.85	0.88	1.01	1.18	1.23	1.29	1.40
20–29 years	262	1.02	0.19	0.69	0.77	0.80	0.88	1.01	1.12	1.20	1.26	1.33
30–39 years	267	0.92	0.20	0.61	0.67	0.70	0.78	0.89	1.05	1.14	1.20	1.27
40–49 years	357	0.82	0.20	0.55	0.59	0.62	0.67	0.79	0.94	1.01	1.10	1.17
50–59 years	291	0.72	0.19	0.44	0.49	0.53	0.57	0.67	0.84	0.93	0.99	1.05
60–69 years	286	0.62	0.17	0.39	0.44	0.45	0.50	0.58	0.70	0.79	0.86	0.95
70–79 years	274	0.56	0.16	0.33	0.38	0.40	0.44	0.52	0.65	0.74	0.78	0.86
80 years and over	191	0.49	0.15	0.26	0.33	0.34	0.38	0.45	0.56	0.61	0.73	0.81
20 years and over, age adjusted	1,928	0.80	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	0.82	0.19	0.56	0.59	0.62	0.67	0.80	0.93	1.03	1.10	1.17
12–15 years	226	1.06	0.22	0.74	0.81	0.84	0.90	1.02	1.21	1.30	1.34	1.46
16–19 years	206	1.13	0.23	0.78	0.83	0.88	0.98	1.10	1.27	1.40	1.46	1.57
20–29 years	136	1.10	0.25	0.68	0.78	0.83	0.89	1.08	1.29	1.38	1.43	1.51
30–39 years	140	0.97	0.22	0.62	0.66	0.71	0.79	0.96	1.11	1.23	1.27	1.37
40–49 years	160	0.90	0.21	0.60	0.63	0.68	0.73	0.87	1.02	1.17	1.23	1.29
50–59 years	134	0.79	0.22	0.48	0.52	0.55	0.61	0.76	0.91	1.03	1.11	1.20
60–69 years	141	0.70	0.24	0.39	0.42	0.47	0.53	0.66	0.81	0.94	1.01	1.07
70–79 years	66	*0.59	0.18	*0.31	*0.33	*0.41	*0.44	*0.57	*0.69	*0.75	*0.81	†
80 years and over	31	*0.49	0.19	†	†	*0.28	*0.38	*0.45	*0.54	†	†	†
20 years and over, age adjusted	808	0.87	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 41. Total lumbar spine (L1–L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	42.73	5.17	34.87	36.33	37.45	38.93	42.60	45.88	47.91	49.24	51.88
12–15 years	783	55.37	8.59	42.03	44.11	45.83	48.26	55.04	61.62	64.13	66.54	69.79
16–19 years	773	65.58	6.84	54.37	56.47	58.50	60.86	65.30	70.24	72.55	74.03	77.09
20–29 years	704	66.37	6.15	56.51	58.36	59.81	61.83	66.34	70.59	72.90	74.37	76.59
30–39 years	714	66.60	6.34	56.12	58.51	59.77	62.22	66.56	71.00	73.59	75.08	76.59
40–49 years	665	67.83	6.17	57.32	59.91	60.89	63.84	67.95	71.86	74.47	75.42	77.85
50–59 years	583	68.26	6.71	57.92	60.00	61.56	63.20	68.00	72.87	75.09	76.53	79.36
60–69 years	527	68.08	6.57	56.93	59.76	61.75	63.88	67.82	72.63	75.11	76.60	78.15
70–79 years	326	69.16	6.45	58.46	60.98	62.06	64.97	69.25	73.27	75.44	77.93	79.44
80 years and over	161	69.52	6.50	59.51	61.37	62.99	65.18	69.08	73.74	76.39	78.39	80.33
20 years and over, age adjusted	3,680	67.58	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	41.56	4.83	33.99	35.64	36.41	38.31	41.06	44.69	46.03	47.82	49.41
12–15 years	231	54.95	8.24	40.60	44.04	46.61	49.67	54.15	60.91	63.82	66.00	68.82
16–19 years	216	62.24	6.39	53.05	54.19	55.08	57.20	61.74	66.29	68.64	70.12	72.82
20–29 years	191	62.91	5.36	54.42	56.00	56.84	59.19	62.70	66.20	68.83	70.33	72.62
30–39 years	149	64.03	5.87	54.68	56.29	57.44	59.39	63.81	67.80	70.33	71.09	73.81
40–49 years	140	64.05	6.07	54.23	56.82	58.07	59.74	64.09	67.93	69.50	71.32	74.80
50–59 years	98	64.35	5.14	54.06	58.14	59.45	60.98	64.21	67.72	69.43	71.08	73.46
60–69 years	94	*65.79	5.99	*55.87	*57.19	*58.61	*61.57	*66.17	*68.89	*71.70	*73.99	*75.74
70–79 years	31	*63.28	6.13	†	*54.75	*55.55	*57.58	*62.77	*66.05	*70.76	*72.64	†
80 years and over	12	*66.79	6.46	†	†	†	†	*64.27	†	†	†	†
20 years and over, age adjusted	715	64.13	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	43.20	5.19	35.01	36.57	38.06	39.40	43.16	46.05	47.91	50.45	53.08
12–15 years	220	55.68	8.56	41.89	44.56	45.98	47.96	55.61	62.14	64.35	66.57	69.81
16–19 years	225	66.56	6.84	54.93	57.78	59.40	62.20	67.23	71.00	73.20	75.45	78.29
20–29 years	281	67.43	5.75	58.02	59.97	61.01	63.47	67.54	71.39	73.10	74.79	76.76
30–39 years	329	67.84	6.16	58.13	59.85	61.60	63.98	67.88	72.00	74.32	75.46	77.13
40–49 years	300	69.00	5.87	59.20	60.56	63.15	65.58	68.78	72.98	74.93	76.10	78.03
50–59 years	305	68.77	6.74	57.98	60.45	61.72	63.88	68.70	73.40	75.67	77.24	79.49
60–69 years	228	68.87	6.19	58.73	60.88	62.75	64.45	69.11	73.08	75.32	77.19	78.37
70–79 years	208	69.75	6.35	58.93	61.54	62.91	66.13	70.16	73.66	76.14	77.97	79.60
80 years and over	126	69.95	6.43	59.60	61.78	63.86	65.95	69.61	74.23	76.58	78.49	80.36
20 years and over, age adjusted	1,777	68.52	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	42.19	4.64	34.69	36.74	37.38	39.11	41.85	45.18	47.77	48.56	50.28
12–15 years	231	54.71	8.39	42.93	44.09	45.52	47.99	54.08	59.43	63.84	65.51	69.72
16–19 years	255	64.15	6.51	53.10	56.41	57.69	59.87	63.82	68.68	71.66	72.80	75.95
20–29 years	157	65.28	6.55	54.86	57.09	58.64	60.89	64.82	69.13	71.89	74.39	77.08
30–39 years	139	65.01	6.31	54.85	57.07	58.63	60.30	65.06	69.02	71.28	73.58	75.74
40–49 years	140	66.44	5.56	56.40	60.01	60.45	62.77	66.15	70.43	71.25	72.41	74.75
50–59 years	108	67.69	6.81	57.69	59.42	60.62	62.82	67.14	72.73	74.87	76.16	80.62
60–69 years	139	67.37	6.57	58.04	59.20	59.88	62.95	66.81	71.44	73.81	77.00	79.83
70–79 years	62	*67.97	6.16	*59.63	*61.00	*61.62	*62.62	*66.91	*71.73	*74.66	*76.76	†
80 years and over	13	*68.15	5.95	†	†	†	*64.25	*67.30	*68.99	†	†	†
20 years and over, age adjusted	758	66.42	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	40.66	5.47	32.70	34.20	35.08	36.87	40.14	43.64	46.30	47.91	51.05
12–15 years	707	52.81	6.30	43.13	44.76	46.71	48.85	52.53	56.75	58.79	60.35	64.52
16–19 years	631	55.90	5.16	48.35	49.64	50.51	52.01	55.84	59.18	61.01	62.54	64.00
20–29 years	591	56.51	5.85	47.67	49.16	50.37	52.32	56.29	60.27	62.39	64.09	66.55
30–39 years	641	56.66	5.44	47.88	49.77	51.06	52.75	56.47	60.40	62.31	63.49	66.21
40–49 years	744	57.35	5.56	48.92	50.43	51.75	53.61	56.97	60.66	63.36	64.18	67.27
50–59 years	588	56.50	5.15	48.44	50.20	50.79	52.74	56.52	60.18	62.30	63.30	64.84
60–69 years	578	56.38	5.44	47.35	48.89	50.27	53.04	56.52	59.87	61.85	62.93	64.46
70–79 years	313	56.63	5.52	48.24	49.73	51.04	52.71	56.22	59.90	61.96	63.53	67.17
80 years and over	154	56.15	5.92	47.44	48.85	50.80	52.14	55.97	60.06	61.91	63.16	65.97
20 years and over, age adjusted	3,609	56.70	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 41. Total lumbar spine (L1–L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	39.35	5.29	31.76	33.05	34.09	35.03	38.72	42.71	44.49	46.65	48.05
12–15 years	228	50.95	5.01	42.71	44.60	46.14	47.98	50.98	54.43	55.98	56.63	58.52
16–19 years	178	53.40	4.45	46.68	47.60	49.36	50.21	53.01	55.86	57.24	59.83	62.70
20–29 years	144	53.80	4.95	46.39	47.76	48.75	50.19	53.23	57.43	59.38	59.97	61.05
30–39 years	149	54.20	5.22	45.07	46.51	48.54	50.43	54.25	57.72	59.72	60.80	62.21
40–49 years	136	55.12	4.72	47.51	49.70	50.40	51.27	54.54	58.54	60.40	61.82	†
50–59 years	99	*53.42	4.67	*46.08	*47.49	*48.06	*50.04	*53.47	*56.37	*57.74	*60.17	*62.31
60–69 years	126	*52.94	4.81	*45.76	*47.18	*47.71	*49.48	*52.56	*56.25	*57.59	*59.36	*60.55
70–79 years	40	*52.11	5.01	†	*44.79	*47.64	*49.26	*52.44	*55.30	*56.48	*57.52	*59.12
80 years and over	6	*53.42	9.28	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	700	53.87	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	40.93	5.26	32.85	34.99	35.68	37.32	40.35	43.61	46.14	47.94	50.42
12–15 years	178	53.64	6.29	43.28	45.15	46.75	49.48	53.11	57.41	59.60	62.56	65.78
16–19 years	172	56.89	4.94	49.54	50.61	51.23	53.02	57.34	59.66	61.33	63.16	64.20
20–29 years	236	57.60	5.68	48.98	50.11	51.62	53.25	57.26	61.06	63.45	65.59	67.16
30–39 years	258	57.67	5.24	48.67	50.78	52.21	54.05	57.69	61.23	62.63	64.55	66.65
40–49 years	348	57.93	5.36	49.49	51.41	52.52	54.34	57.52	61.11	63.48	64.40	67.67
50–59 years	281	57.17	5.04	49.13	50.46	51.78	53.39	57.12	60.88	62.60	63.61	65.15
60–69 years	245	56.88	5.39	47.59	49.83	51.48	53.38	57.03	60.16	61.99	63.50	64.69
70–79 years	197	57.15	5.42	48.87	50.59	51.59	53.04	56.46	60.19	62.33	64.68	68.85
80 years and over	117	56.13	5.89	47.53	48.85	50.89	52.16	55.92	59.57	61.83	63.91	65.98
20 years and over, age adjusted	1,682	57.44	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	41.41	5.77	32.90	33.91	34.87	37.62	40.53	45.34	47.42	49.10	52.15
12–15 years	225	52.42	5.58	43.09	44.83	46.71	48.31	52.18	55.85	57.98	59.64	61.71
16–19 years	202	54.77	5.38	45.40	48.53	49.70	50.97	54.00	58.58	60.42	61.61	63.10
20–29 years	127	55.40	6.14	45.89	48.44	50.00	51.69	55.40	59.47	61.46	62.70	64.70
30–39 years	142	55.78	5.70	48.24	49.35	50.07	51.45	54.84	59.27	62.40	63.52	64.85
40–49 years	164	57.30	5.84	48.08	49.58	51.57	53.13	56.60	60.69	63.62	64.73	†
50–59 years	131	55.42	5.30	47.89	49.03	50.23	51.19	55.07	58.25	61.74	63.10	†
60–69 years	139	56.12	5.12	46.75	48.63	50.29	52.82	56.41	59.40	61.02	61.95	64.66
70–79 years	52	*55.81	5.41	*47.19	*48.37	*49.08	*52.51	*55.78	*59.62	*61.72	*62.41	†
80 years and over	22	*56.83	5.63	†	†	*49.51	*53.83	*57.03	*60.67	*61.87	†	†
20 years and over, age adjusted	777	56.07	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 42. Lumbar spine vertebra 1 (L1) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	9.22	1.22	7.39	7.76	8.03	8.36	9.05	10.00	10.42	10.70	11.52
12–15 years	788	11.90	1.92	8.87	9.45	9.76	10.33	11.86	13.32	13.90	14.35	15.18
16–19 years	775	14.31	1.60	11.61	12.18	12.68	13.26	14.33	15.34	15.83	16.45	17.33
20–29 years	719	14.57	1.47	12.19	12.72	13.03	13.58	14.52	15.52	16.13	16.45	17.02
30–39 years	738	14.78	1.52	12.30	12.75	13.19	13.64	14.80	15.89	16.42	16.76	17.26
40–49 years	698	15.12	1.45	12.53	13.24	13.65	14.27	15.12	15.95	16.58	16.91	17.57
50–59 years	633	15.29	1.66	12.56	13.33	13.58	14.05	15.18	16.42	17.11	17.54	18.03
60–69 years	656	15.48	1.69	12.81	13.36	13.67	14.28	15.53	16.62	17.12	17.52	18.13
70–79 years	440	15.74	1.65	13.13	13.63	13.95	14.54	15.83	16.73	17.52	17.82	18.46
80 years and over	234	15.82	1.60	13.52	13.88	14.12	14.67	15.83	16.58	17.53	18.18	18.68
20 years and over, age adjusted	4,118	15.09	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	210	9.06	1.05	7.53	7.81	8.06	8.29	8.95	9.60	10.25	10.46	10.98
12–15 years	234	11.84	1.85	8.62	9.45	9.89	10.68	11.60	13.18	13.77	13.95	14.57
16–19 years	217	13.54	1.52	11.30	11.56	12.03	12.41	13.49	14.50	14.99	15.51	16.17
20–29 years	196	13.80	1.30	11.66	12.12	12.36	12.83	13.78	14.63	15.42	15.63	16.02
30–39 years	152	14.16	1.43	11.89	12.34	12.61	13.19	14.01	15.16	15.61	15.94	16.68
40–49 years	149	14.21	1.46	11.81	12.30	12.67	13.17	14.26	15.23	15.67	16.02	16.73
50–59 years	104	14.48	1.31	12.24	13.01	13.35	13.58	14.32	15.08	15.68	16.57	16.92
60–69 years	111	14.79	1.46	12.23	12.89	13.21	13.84	14.72	15.58	16.21	16.61	17.39
70–79 years	40	*14.27	1.52	†	†	*12.80	*13.25	*14.24	*15.19	*15.68	*16.00	†
80 years and over	13	*14.97	1.51	†	†	†	*13.86	*14.62	†	†	†	†
20 years and over, age adjusted	765	14.27	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	206	9.33	1.25	7.46	7.80	8.10	8.47	9.17	10.12	10.54	10.85	11.74
12–15 years	221	12.01	1.94	8.89	9.57	9.78	10.32	12.08	13.47	13.95	14.56	15.22
16–19 years	225	14.54	1.60	11.73	12.38	12.84	13.52	14.59	15.49	15.98	16.64	17.40
20–29 years	283	14.83	1.38	12.47	13.11	13.42	13.91	14.83	15.68	16.28	16.65	17.22
30–39 years	343	15.08	1.45	12.60	13.18	13.52	14.08	15.12	16.17	16.70	16.88	17.29
40–49 years	318	15.41	1.40	13.05	13.74	14.11	14.61	15.37	16.21	16.71	17.13	17.73
50–59 years	327	15.44	1.64	12.77	13.47	13.72	14.25	15.35	16.59	17.26	17.57	18.16
60–69 years	284	15.74	1.60	13.11	13.66	13.95	14.57	15.81	16.79	17.33	17.64	18.27
70–79 years	288	15.91	1.61	13.44	13.86	14.17	14.76	16.00	16.95	17.66	17.89	18.56
80 years and over	186	15.91	1.58	13.63	13.90	14.32	14.78	15.93	16.60	17.64	18.23	18.69
20 years and over, age adjusted	2,029	15.34	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	199	8.94	1.15	7.06	7.45	7.94	8.27	8.82	9.69	10.06	10.45	10.87
12–15 years	232	11.65	1.85	9.01	9.29	9.61	10.07	11.61	12.90	13.47	13.99	15.03
16–19 years	256	13.96	1.55	11.42	11.96	12.33	12.93	13.84	14.92	15.60	16.17	16.63
20–29 years	163	14.32	1.58	11.86	12.41	12.73	13.12	14.35	15.28	15.94	16.38	17.19
30–39 years	145	14.35	1.50	11.71	12.44	12.85	13.37	14.28	15.24	15.76	16.43	17.04
40–49 years	145	14.60	1.27	12.52	12.94	13.22	13.75	14.62	15.32	15.69	16.03	16.76
50–59 years	121	15.00	1.77	12.32	13.01	13.44	13.78	14.64	15.84	16.56	17.81	18.44
60–69 years	182	14.95	1.58	12.35	12.72	13.02	13.91	14.89	15.93	16.58	16.86	17.46
70–79 years	79	*15.12	1.63	*12.85	*13.27	*13.50	*13.87	*15.19	*15.94	*16.71	*17.22	*17.99
80 years and over	22	*15.39	1.68	†	†	*13.25	*14.42	*15.06	*16.11	*16.71	†	†
20 years and over, age adjusted	857	14.67	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	747	8.72	1.16	6.91	7.28	7.57	7.91	8.66	9.32	9.90	10.30	10.96
12–15 years	717	11.28	1.38	9.10	9.49	9.81	10.30	11.17	12.13	12.65	13.05	13.75
16–19 years	678	11.90	1.22	9.90	10.34	10.67	11.05	11.91	12.65	13.11	13.41	13.82
20–29 years	636	12.06	1.26	9.98	10.37	10.70	11.14	12.05	12.98	13.46	13.71	14.13
30–39 years	654	12.12	1.27	10.02	10.49	10.75	11.20	12.10	13.02	13.48	13.80	14.31
40–49 years	783	12.29	1.28	10.17	10.68	10.96	11.40	12.28	13.09	13.52	13.87	14.61
50–59 years	630	12.13	1.26	10.19	10.55	10.80	11.26	12.09	13.03	13.48	13.80	14.18
60–69 years	677	12.15	1.28	10.12	10.55	10.77	11.17	12.16	13.06	13.51	13.87	14.21
70–79 years	429	12.20	1.33	10.14	10.45	10.81	11.32	12.09	13.02	13.47	14.03	14.73
80 years and over	235	12.26	1.46	10.06	10.44	10.76	11.21	12.27	13.12	13.73	14.14	14.66
20 years and over, age adjusted	4,044	12.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 42. Lumbar spine vertebra 1 (L1) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	8.45	1.10	6.88	7.20	7.34	7.61	8.34	9.10	9.48	9.88	10.33
12–15 years	231	10.78	1.13	9.03	9.33	9.52	10.01	10.84	11.44	11.84	12.26	12.72
16–19 years	187	11.33	1.07	9.66	10.10	10.20	10.57	11.16	11.99	12.33	12.60	†
20–29 years	149	11.51	1.12	9.64	10.00	10.25	10.73	11.50	12.25	12.69	12.90	13.26
30–39 years	149	11.58	1.17	9.64	9.93	10.37	10.88	11.50	12.41	12.95	13.16	13.56
40–49 years	141	11.86	1.12	9.99	10.52	10.64	11.02	11.88	12.67	13.07	13.35	13.63
50–59 years	107	*11.61	1.10	*9.82	*10.19	*10.46	*10.82	*11.56	*12.38	*12.71	*12.85	*13.31
60–69 years	138	*11.43	1.18	*9.81	*10.00	*10.26	*10.58	*11.28	*12.32	*12.70	*12.99	*13.28
70–79 years	49	*11.53	1.31	†	*9.96	*10.16	*10.45	*11.48	*12.50	*13.03	*13.21	*13.70
80 years and over	11	*11.68	2.15	†	†	†	†	*11.13	*13.08	†	†	†
20 years and over, age adjusted	744	11.62	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	8.82	1.16	6.91	7.48	7.74	8.04	8.78	9.37	9.96	10.35	11.04
12–15 years	184	11.49	1.43	9.17	9.56	9.91	10.62	11.44	12.31	12.94	13.24	14.29
16–19 years	196	12.12	1.15	10.22	10.77	10.95	11.39	12.08	12.76	13.23	13.53	13.83
20–29 years	258	12.32	1.20	10.28	10.71	11.03	11.39	12.22	13.16	13.64	13.87	14.19
30–39 years	267	12.39	1.23	10.28	10.74	11.04	11.62	12.33	13.22	13.70	13.90	14.49
40–49 years	366	12.43	1.25	10.50	10.74	11.14	11.49	12.46	13.19	13.62	14.17	14.74
50–59 years	300	12.31	1.25	10.27	10.69	10.93	11.37	12.24	13.25	13.65	13.89	14.37
60–69 years	291	12.27	1.28	10.24	10.66	10.80	11.30	12.25	13.12	13.67	13.92	14.33
70–79 years	271	12.30	1.33	10.18	10.57	10.98	11.38	12.29	13.14	13.50	14.10	14.77
80 years and over	179	12.30	1.48	10.10	10.45	10.79	11.21	12.28	13.24	13.78	14.23	14.68
20 years and over, age adjusted	1,932	12.35	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	8.72	1.22	6.93	7.20	7.42	7.85	8.58	9.47	9.94	10.60	10.89
12–15 years	226	11.07	1.26	8.94	9.36	9.73	10.13	11.06	11.96	12.36	12.52	13.16
16–19 years	212	11.56	1.31	9.32	9.99	10.21	10.66	11.51	12.42	12.95	13.17	13.79
20–29 years	139	11.62	1.17	9.69	9.87	10.25	10.78	11.65	12.37	12.79	13.19	13.36
30–39 years	146	11.73	1.29	9.91	10.29	10.47	10.70	11.57	12.49	13.08	13.30	13.99
40–49 years	172	12.08	1.34	9.61	10.44	10.83	11.22	12.07	12.86	13.44	13.68	†
50–59 years	143	11.72	1.27	9.62	10.15	10.31	10.88	11.70	12.52	13.01	13.52	13.94
60–69 years	170	11.88	1.19	9.99	10.20	10.58	11.06	11.79	12.65	13.11	13.39	13.84
70–79 years	76	*11.77	1.16	*9.74	*10.17	*10.51	*11.20	*11.71	*12.48	*12.87	*13.20	*13.84
80 years and over	31	*11.94	1.14	†	*10.44	*10.56	*10.95	*12.05	*12.58	*12.69	*12.80	†
20 years and over, age adjusted	877	11.81	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 43. Lumbar spine vertebra 2 (L2) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	9.91	1.21	8.12	8.51	8.71	8.98	9.82	10.63	11.13	11.43	12.06
12–15 years	789	12.96	2.06	9.78	10.36	10.68	11.27	12.93	14.42	15.22	15.55	16.31
16–19 years	776	15.36	1.66	12.69	13.21	13.69	14.17	15.37	16.48	17.08	17.55	18.12
20–29 years	724	15.61	1.47	13.21	13.71	14.03	14.61	15.55	16.57	17.17	17.58	18.03
30–39 years	749	15.81	1.55	13.30	13.86	14.22	14.70	15.77	16.90	17.48	17.75	18.33
40–49 years	717	16.07	1.58	13.56	14.07	14.45	15.11	15.93	17.03	17.70	18.17	18.81
50–59 years	656	16.28	1.69	13.69	14.14	14.44	15.07	16.16	17.36	18.11	18.56	19.07
60–69 years	658	16.34	1.70	13.61	14.17	14.49	15.03	16.34	17.51	17.98	18.47	18.97
70–79 years	443	16.63	1.76	13.87	14.46	14.91	15.36	16.66	17.86	18.31	18.68	19.40
80 years and over	227	16.73	1.62	14.27	14.62	15.01	15.66	16.65	17.80	18.38	18.77	19.35
20 years and over, age adjusted	4,174	16.07	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	9.68	1.16	7.81	8.22	8.46	8.85	9.63	10.40	10.74	11.17	11.73
12–15 years	235	12.86	1.99	9.46	10.06	10.89	11.58	12.79	14.27	14.83	15.43	16.29
16–19 years	216	14.70	1.65	12.30	12.67	12.93	13.43	14.64	15.78	16.29	16.63	17.24
20–29 years	198	14.88	1.34	12.69	13.10	13.46	13.94	14.86	15.81	16.25	16.50	17.17
30–39 years	156	15.32	1.45	13.07	13.45	13.71	14.19	15.20	16.33	16.96	17.37	17.76
40–49 years	152	15.22	1.49	12.75	13.50	13.72	14.15	15.05	16.00	16.73	17.30	17.85
50–59 years	106	15.50	1.37	12.86	13.63	14.11	14.50	15.61	16.35	16.66	17.00	17.85
60–69 years	111	15.73	1.54	13.38	13.69	13.97	14.53	15.56	16.75	17.44	17.88	18.41
70–79 years	42	*15.25	2.01	†	*12.83	*12.96	*13.88	*15.29	*16.84	*17.00	*17.62	†
80 years and over	13	*16.11	1.84	†	†	†	*15.02	*15.56	†	†	†	†
20 years and over, age adjusted	778	15.32	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	207	10.01	1.22	8.16	8.52	8.74	9.11	9.91	10.64	11.19	11.70	12.20
12–15 years	221	13.05	2.05	9.80	10.44	10.74	11.23	13.03	14.54	15.31	15.61	16.25
16–19 years	226	15.58	1.65	12.93	13.46	13.92	14.28	15.64	16.67	17.20	17.60	18.15
20–29 years	287	15.86	1.37	13.67	14.06	14.44	14.92	15.83	16.89	17.26	17.64	18.08
30–39 years	345	16.11	1.48	13.85	14.29	14.56	15.08	16.13	17.11	17.60	17.95	18.40
40–49 years	327	16.35	1.51	13.86	14.38	14.97	15.44	16.28	17.29	17.93	18.43	18.88
50–59 years	336	16.40	1.67	13.82	14.21	14.51	15.20	16.28	17.52	18.23	18.70	19.07
60–69 years	289	16.56	1.63	13.94	14.43	14.72	15.33	16.52	17.64	18.15	18.58	19.01
70–79 years	291	16.76	1.75	13.88	14.55	14.99	15.44	16.85	18.02	18.41	18.79	19.54
80 years and over	179	16.85	1.57	14.50	14.79	15.10	15.76	16.83	17.85	18.42	18.78	19.32
20 years and over, age adjusted	2,054	16.30	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	9.81	1.11	8.05	8.54	8.70	9.05	9.72	10.51	10.91	11.25	11.82
12–15 years	231	12.75	1.96	9.92	10.32	10.64	11.13	12.56	13.99	14.82	15.21	16.18
16–19 years	257	14.98	1.57	12.35	13.05	13.38	13.95	14.87	16.04	16.75	17.01	17.70
20–29 years	162	15.31	1.56	12.87	13.19	13.53	14.25	15.34	16.32	16.90	17.25	17.86
30–39 years	147	15.31	1.54	12.83	13.29	13.64	14.25	15.26	16.38	16.88	17.30	17.76
40–49 years	152	15.55	1.50	13.05	13.74	14.11	14.50	15.50	16.36	16.99	17.68	17.95
50–59 years	126	16.17	1.83	13.53	13.96	14.42	14.88	16.15	17.12	17.76	18.69	19.50
60–69 years	184	16.06	1.71	13.37	13.82	14.13	14.84	15.97	16.98	17.81	18.26	19.22
70–79 years	77	*16.13	1.54	*13.99	*14.51	*14.74	*15.02	*16.04	*16.98	*18.00	*18.25	*18.69
80 years and over	21	*16.44	1.52	†	†	*15.11	*15.41	*16.13	*16.96	*17.33	†	†
20 years and over, age adjusted	869	15.69	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	747	9.47	1.29	7.61	7.96	8.15	8.53	9.32	10.18	10.81	11.35	11.88
12–15 years	718	12.35	1.48	9.92	10.51	10.79	11.34	12.28	13.32	13.92	14.18	15.11
16–19 years	679	12.97	1.30	11.02	11.27	11.63	11.97	12.97	13.82	14.21	14.49	15.10
20–29 years	641	13.18	1.43	10.97	11.36	11.69	12.15	13.12	14.13	14.63	15.13	15.57
30–39 years	662	13.21	1.35	11.07	11.46	11.72	12.25	13.21	14.13	14.70	14.98	15.42
40–49 years	783	13.47	1.36	11.30	11.73	12.08	12.60	13.38	14.38	14.90	15.24	15.83
50–59 years	644	13.22	1.34	11.10	11.58	11.82	12.29	13.20	14.13	14.67	14.95	15.38
60–69 years	681	13.27	1.38	10.89	11.43	11.84	12.34	13.26	14.12	14.71	15.06	15.63
70–79 years	420	13.38	1.41	11.07	11.58	11.92	12.40	13.36	14.24	14.74	15.15	15.92
80 years and over	213	13.27	1.50	10.90	11.45	11.70	12.24	13.22	14.22	14.73	15.21	15.97
20 years and over, age adjusted	4,044	13.29	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 43. Lumbar spine vertebra 2 (L2) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	9.19	1.30	7.46	7.68	7.95	8.21	8.94	10.00	10.40	10.96	11.49
12–15 years	231	11.90	1.16	10.07	10.41	10.74	11.09	11.81	12.59	13.06	13.32	13.86
16–19 years	187	12.43	1.14	10.86	11.10	11.23	11.53	12.23	13.09	13.62	13.89	14.71
20–29 years	150	12.59	1.27	10.73	11.02	11.32	11.68	12.39	13.49	14.06	14.32	15.04
30–39 years	149	12.72	1.31	10.36	11.00	11.31	11.69	12.84	13.64	14.20	14.44	14.64
40–49 years	142	13.03	1.21	11.05	11.43	11.75	12.08	13.00	13.85	14.39	14.60	15.12
50–59 years	107	12.65	1.26	10.79	11.05	11.21	11.82	12.46	13.49	14.11	14.37	14.86
60–69 years	145	*12.54	1.20	*10.70	*11.06	*11.26	*11.61	*12.27	*13.46	*13.84	*14.06	†
70–79 years	52	*12.60	1.58	†	*10.55	*10.73	*11.58	*12.29	*13.63	*14.07	*14.69	*15.27
80 years and over	8	*12.74	2.06	†	†	†	†	*12.61	†	†	†	†
20 years and over, age adjusted	753	12.73	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	9.55	1.24	7.69	8.08	8.35	8.61	9.43	10.17	10.82	11.36	11.83
12–15 years	184	12.56	1.55	9.91	10.58	10.82	11.46	12.50	13.53	14.09	14.40	15.35
16–19 years	197	13.18	1.26	11.13	11.57	11.79	12.27	13.13	13.96	14.29	14.57	15.32
20–29 years	261	13.44	1.43	11.20	11.64	11.96	12.40	13.44	14.31	14.92	15.36	15.71
30–39 years	272	13.44	1.32	11.25	11.63	12.13	12.54	13.41	14.31	14.89	15.17	15.46
40–49 years	365	13.61	1.32	11.39	11.88	12.26	12.83	13.48	14.52	14.97	15.30	15.96
50–59 years	305	13.36	1.31	11.22	11.64	11.92	12.42	13.33	14.25	14.78	15.16	15.40
60–69 years	287	13.37	1.38	10.91	11.54	11.99	12.47	13.34	14.22	14.78	15.11	15.79
70–79 years	257	13.51	1.37	11.28	11.83	12.10	12.47	13.51	14.32	14.78	15.21	15.95
80 years and over	158	13.30	1.51	10.97	11.50	11.72	12.33	13.23	14.19	14.85	15.32	15.99
20 years and over, age adjusted	1,905	13.46	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	9.63	1.37	7.66	7.85	8.07	8.64	9.49	10.66	11.10	11.57	12.22
12–15 years	227	12.15	1.33	10.05	10.42	10.74	11.15	12.14	13.00	13.49	13.74	14.32
16–19 years	212	12.64	1.37	10.40	10.90	11.31	11.67	12.54	13.75	14.11	14.44	14.83
20–29 years	139	12.84	1.32	10.74	11.08	11.48	11.99	12.80	13.68	14.13	14.37	15.12
30–39 years	148	13.01	1.40	10.96	11.32	11.53	11.86	12.82	13.88	14.48	14.77	15.53
40–49 years	172	13.34	1.43	11.12	11.45	11.86	12.33	13.23	14.28	14.78	15.37	†
50–59 years	152	12.97	1.43	10.75	11.07	11.49	12.04	12.90	13.80	14.39	14.84	15.47
60–69 years	170	13.15	1.26	10.99	11.45	11.95	12.31	13.06	13.88	14.59	14.89	15.33
70–79 years	74	*13.06	1.27	*10.90	*11.40	*11.65	*12.12	*13.02	*13.82	*14.08	*14.68	*15.07
80 years and over	33	*13.25	1.38	†	*11.42	*11.73	*12.13	*13.27	*14.44	*14.70	*14.74	†
20 years and over, age adjusted	888	13.07	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 44. Lumbar spine vertebra 3 (L3) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	716	10.91	1.38	8.69	9.14	9.54	9.92	10.82	11.76	12.29	12.70	13.27
12–15 years	789	14.36	2.33	10.81	11.28	11.69	12.53	14.33	16.05	16.76	17.43	18.37
16–19 years	777	17.00	1.82	14.09	14.71	15.09	15.73	16.96	18.23	18.85	19.15	19.82
20–29 years	724	17.18	1.66	14.58	15.00	15.30	16.02	17.18	18.33	18.86	19.37	20.07
30–39 years	743	17.20	1.74	14.32	14.88	15.27	16.05	17.16	18.37	19.18	19.54	20.12
40–49 years	719	17.47	1.65	14.65	15.30	15.73	16.37	17.39	18.56	19.20	19.57	20.26
50–59 years	639	17.48	1.82	14.66	15.20	15.61	16.15	17.39	18.81	19.39	19.90	20.42
60–69 years	630	17.49	1.77	14.75	15.31	15.65	16.19	17.44	18.70	19.30	19.69	20.25
70–79 years	412	17.70	1.81	14.95	15.34	15.70	16.53	17.68	18.88	19.49	20.00	20.60
80 years and over	215	17.75	1.81	14.89	15.57	15.96	16.33	17.65	19.06	19.66	20.12	20.70
20 years and over, age adjusted	4,082	17.40	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	10.62	1.34	8.53	8.87	9.13	9.65	10.56	11.50	11.97	12.39	12.78
12–15 years	234	14.30	2.22	10.39	11.16	12.00	12.75	14.09	15.85	16.72	17.29	17.92
16–19 years	217	16.19	1.72	13.66	14.02	14.26	14.99	16.19	17.34	17.93	18.26	18.98
20–29 years	199	16.38	1.48	13.86	14.50	14.79	15.30	16.32	17.54	17.99	18.35	18.81
30–39 years	156	16.48	1.56	14.04	14.36	14.80	15.22	16.35	17.47	17.95	18.38	18.99
40–49 years	155	16.45	1.65	13.89	14.31	14.71	15.44	16.27	17.42	18.20	18.59	19.20
50–59 years	105	16.63	1.48	13.97	14.62	14.90	15.51	16.76	17.55	18.13	18.48	19.10
60–69 years	111	*16.77	1.60	*13.60	*14.62	*15.02	*15.84	*16.68	*17.74	*18.39	*18.61	*19.08
70–79 years	38	*16.16	1.73	†	†	*14.47	*14.67	*16.16	*17.05	*17.72	*17.89	†
80 years and over	13	*16.74	1.52	†	†	†	*15.31	*16.47	*17.23	†	†	†
20 years and over, age adjusted	777	16.49	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	208	11.00	1.39	8.68	9.43	9.62	10.09	10.91	11.81	12.31	12.75	13.41
12–15 years	221	14.42	2.30	10.84	11.28	11.67	12.48	14.54	16.11	16.79	17.36	18.19
16–19 years	226	17.24	1.80	14.29	14.87	15.22	16.04	17.36	18.55	18.96	19.24	20.19
20–29 years	286	17.42	1.58	14.78	15.20	15.72	16.32	17.48	18.39	19.03	19.45	20.09
30–39 years	341	17.54	1.69	14.66	15.29	15.77	16.41	17.56	18.75	19.35	19.67	20.21
40–49 years	327	17.77	1.56	15.10	15.76	16.22	16.76	17.82	18.75	19.38	19.75	20.50
50–59 years	327	17.57	1.80	14.86	15.42	15.77	16.22	17.50	18.88	19.45	19.91	20.37
60–69 years	276	17.72	1.68	15.22	15.60	15.84	16.40	17.81	18.85	19.43	19.86	20.32
70–79 years	273	17.83	1.80	15.08	15.50	15.80	16.64	17.84	18.96	19.70	20.09	20.66
80 years and over	169	17.86	1.79	15.01	15.63	15.99	16.58	17.80	19.08	19.72	20.20	20.71
20 years and over, age adjusted	1,999	17.63	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	10.86	1.25	8.90	9.32	9.56	10.02	10.76	11.67	12.22	12.46	13.17
12–15 years	232	14.18	2.25	10.89	11.27	11.81	12.30	14.09	15.59	16.36	16.89	18.03
16–19 years	257	16.61	1.74	13.44	14.67	14.96	15.37	16.34	17.66	18.50	19.22	19.61
20–29 years	163	16.99	1.78	14.11	14.72	15.22	15.95	16.82	18.19	18.87	19.32	19.75
30–39 years	146	16.79	1.79	14.03	14.53	15.01	15.41	16.65	17.94	18.66	19.09	19.82
40–49 years	151	17.27	1.65	14.54	15.08	15.79	16.20	17.23	18.36	18.77	19.19	19.92
50–59 years	121	17.79	2.02	14.76	15.20	15.62	16.13	17.67	19.38	19.93	20.43	21.14
60–69 years	170	17.22	1.70	14.57	14.98	15.51	15.94	17.07	18.26	19.07	19.38	20.22
70–79 years	71	*17.42	1.77	*15.05	*15.18	*15.42	*16.08	*17.05	*18.92	*19.25	*19.55	*20.46
80 years and over	19	*17.64	1.88	†	†	*16.00	*16.23	*17.38	*17.89	†	†	†
20 years and over, age adjusted	841	17.22	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	745	10.42	1.51	8.23	8.67	8.89	9.28	10.25	11.26	11.97	12.46	13.26
12–15 years	715	13.75	1.65	10.98	11.67	12.06	12.72	13.67	14.75	15.34	15.79	16.88
16–19 years	663	14.50	1.40	12.42	12.77	12.97	13.52	14.41	15.38	15.91	16.35	17.02
20–29 years	629	14.70	1.54	12.30	12.79	13.12	13.48	14.68	15.72	16.33	16.75	17.31
30–39 years	664	14.68	1.48	12.34	12.86	13.13	13.53	14.56	15.71	16.28	16.65	17.05
40–49 years	790	14.94	1.50	12.57	13.06	13.35	13.90	14.81	15.92	16.58	16.99	17.52
50–59 years	641	14.68	1.41	12.39	12.76	13.20	13.67	14.61	15.73	16.18	16.58	17.07
60–69 years	663	14.60	1.44	12.34	12.69	13.10	13.66	14.56	15.55	15.97	16.46	17.02
70–79 years	402	14.61	1.44	12.45	12.85	13.14	13.52	14.42	15.49	16.12	16.45	17.32
80 years and over	207	14.45	1.61	12.03	12.40	12.78	13.25	14.45	15.53	16.09	16.44	17.18
20 years and over, age adjusted	3,996	14.72	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 44. Lumbar spine vertebra 3 (L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	10.08	1.47	8.04	8.34	8.61	8.96	9.92	10.95	11.50	11.90	12.70
12–15 years	231	13.34	1.35	11.06	11.44	11.72	12.39	13.36	14.35	14.83	14.95	15.38
16–19 years	184	13.94	1.21	12.03	12.46	12.68	13.04	13.83	14.60	15.01	15.57	16.33
20–29 years	149	14.01	1.37	11.86	12.42	12.60	12.94	13.89	14.96	15.45	15.80	16.16
30–39 years	149	14.10	1.45	11.50	12.17	12.59	13.11	14.06	15.17	15.53	15.83	16.25
40–49 years	141	14.38	1.22	12.46	12.91	13.09	13.47	14.32	15.19	15.70	15.97	16.62
50–59 years	112	13.95	1.28	11.72	12.25	12.58	12.95	13.83	14.92	15.33	15.55	16.03
60–69 years	147	13.65	1.29	11.45	11.95	12.17	12.75	13.71	14.57	14.93	15.16	15.51
70–79 years	53	*13.83	1.29	†	*12.12	*12.26	*13.15	*13.73	*14.76	*15.17	*15.47	*15.77
80 years and over	10	*13.33	1.37	†	†	†	†	*13.12	†	†	†	†
20 years and over, age adjusted	761	14.02	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	10.48	1.46	8.25	8.81	9.03	9.40	10.30	11.22	11.94	12.43	13.06
12–15 years	181	13.92	1.71	10.97	11.67	12.08	12.80	13.80	14.95	15.52	16.18	17.15
16–19 years	189	14.70	1.37	12.63	12.87	13.25	13.76	14.61	15.56	16.03	16.50	17.32
20–29 years	259	14.95	1.50	12.74	13.15	13.29	13.82	14.85	15.86	16.51	16.88	17.53
30–39 years	273	14.90	1.45	12.62	13.09	13.33	13.97	14.79	15.89	16.39	16.79	17.26
40–49 years	371	15.06	1.45	12.80	13.29	13.61	14.03	14.90	15.95	16.60	17.00	17.56
50–59 years	299	14.83	1.41	12.42	12.92	13.35	13.85	14.81	15.88	16.31	16.65	17.15
60–69 years	281	14.71	1.41	12.46	12.91	13.31	13.78	14.62	15.59	16.10	16.60	17.17
70–79 years	244	14.71	1.43	12.63	12.93	13.23	13.62	14.51	15.60	16.30	16.54	17.39
80 years and over	154	14.48	1.61	12.12	12.45	12.88	13.34	14.53	15.54	16.06	16.47	17.26
20 years and over, age adjusted	1,881	14.88	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	10.66	1.59	8.36	8.64	8.96	9.49	10.53	11.72	12.32	12.77	13.55
12–15 years	227	13.70	1.57	11.14	11.77	12.10	12.47	13.73	14.63	15.10	15.65	†
16–19 years	208	14.28	1.53	11.89	12.47	12.71	13.25	14.01	15.21	16.02	16.47	17.02
20–29 years	133	14.58	1.58	11.79	12.65	12.92	13.34	14.62	15.70	16.31	16.48	17.10
30–39 years	148	14.60	1.53	12.52	12.97	13.09	13.43	14.28	15.57	16.41	16.75	17.07
40–49 years	174	15.01	1.65	12.56	12.77	13.12	13.80	14.89	16.07	16.95	17.32	17.99
50–59 years	148	14.47	1.44	12.58	12.74	12.90	13.40	14.23	15.47	16.00	16.64	17.03
60–69 years	157	14.65	1.42	12.46	12.76	13.01	13.65	14.71	15.55	16.04	16.25	17.00
70–79 years	71	*14.56	1.29	*12.25	*12.70	*13.08	*13.85	*14.43	*15.28	*16.08	*16.23	*16.41
80 years and over	28	*14.73	1.78	†	†	*12.39	*13.09	*14.75	*16.26	*16.43	*16.70	†
20 years and over, age adjusted	859	14.67	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 45. Lumbar spine vertebra 4 (L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	716	12.68	1.63	10.08	10.63	10.88	11.54	12.61	13.68	14.32	14.82	15.66
12–15 years	789	16.12	2.48	12.20	12.99	13.42	14.26	16.09	18.01	18.60	19.40	20.19
16–19 years	776	18.89	2.10	15.57	16.14	16.65	17.48	18.74	20.28	21.19	21.68	22.59
20–29 years	718	18.99	1.92	15.92	16.50	16.84	17.62	19.04	20.32	20.90	21.37	22.10
30–39 years	736	18.88	1.88	15.79	16.40	16.92	17.61	18.79	20.21	20.96	21.45	21.83
40–49 years	706	19.17	1.89	16.08	16.79	17.22	17.88	19.10	20.49	21.00	21.43	22.12
50–59 years	635	19.31	2.01	16.09	16.72	17.24	17.91	19.37	20.57	21.24	21.78	22.59
60–69 years	598	19.42	1.96	16.32	16.91	17.33	18.10	19.45	20.85	21.54	22.02	22.51
70–79 years	403	19.50	2.09	15.92	16.73	17.18	18.23	19.48	20.90	21.64	22.03	22.87
80 years and over	200	19.63	2.02	16.20	17.01	17.43	18.10	19.53	21.29	21.90	22.29	22.94
20 years and over, age adjusted	3,996	19.17	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	12.16	1.53	9.74	10.16	10.60	11.10	12.13	13.19	13.59	13.97	14.79
12–15 years	235	15.92	2.37	12.12	12.95	13.56	14.29	15.57	17.45	18.60	19.08	20.00
16–19 years	217	17.75	1.83	15.11	15.51	15.90	16.33	17.66	18.86	19.44	19.79	21.28
20–29 years	198	17.85	1.61	15.51	15.89	16.18	16.68	17.62	18.87	19.53	20.00	20.76
30–39 years	153	18.07	1.79	15.34	15.70	16.10	16.64	18.16	19.20	19.90	20.44	21.02
40–49 years	151	18.05	1.91	15.19	15.59	15.95	16.58	18.01	19.19	19.95	20.53	21.26
50–59 years	106	18.05	1.59	15.50	16.20	16.35	16.83	17.97	18.95	19.91	20.17	21.02
60–69 years	104	*18.47	1.96	*15.31	*15.87	*16.20	*16.95	*18.51	*20.03	*20.56	*21.07	*21.59
70–79 years	43	*18.08	1.90	†	*15.34	*16.27	*16.74	*17.84	*19.25	*20.01	*20.64	*21.09
80 years and over	12	*18.80	1.86	†	†	†	*17.65	*18.40	*18.83	†	†	†
20 years and over, age adjusted	767	18.10	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	208	12.84	1.61	10.30	10.85	11.02	11.80	12.85	13.81	14.43	15.04	16.02
12–15 years	220	16.16	2.46	12.20	12.94	13.45	14.27	16.17	18.22	18.56	19.40	20.18
16–19 years	226	19.19	2.11	15.72	16.36	17.12	17.86	19.13	20.64	21.41	21.98	22.68
20–29 years	286	19.32	1.80	16.34	16.82	17.29	18.08	19.47	20.53	21.00	21.43	22.27
30–39 years	336	19.23	1.86	16.32	16.94	17.27	17.96	19.18	20.61	21.35	21.63	21.95
40–49 years	320	19.51	1.80	16.49	17.11	17.75	18.32	19.58	20.70	21.23	21.77	22.20
50–59 years	326	19.43	2.03	15.99	16.76	17.33	18.04	19.56	20.67	21.29	21.82	22.95
60–69 years	268	19.63	1.81	16.57	17.10	17.65	18.34	19.58	20.92	21.59	22.03	22.45
70–79 years	265	19.62	2.05	16.15	16.78	17.37	18.32	19.63	21.01	21.69	22.13	23.12
80 years and over	161	19.73	2.02	16.19	17.12	17.48	18.21	19.63	21.35	21.91	22.38	23.00
20 years and over, age adjusted	1,962	19.44	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	12.56	1.43	10.21	10.66	11.08	11.58	12.49	13.41	14.09	14.54	15.12
12–15 years	232	16.14	2.53	12.55	13.13	13.30	14.18	16.05	17.59	18.59	19.57	20.76
16–19 years	256	18.56	2.02	15.40	16.02	16.40	17.14	18.42	19.99	20.72	21.25	22.29
20–29 years	158	18.77	2.03	15.45	16.41	16.94	17.53	18.53	19.90	21.20	21.51	22.21
30–39 years	147	18.52	1.83	15.32	16.16	16.64	17.47	18.37	19.66	20.60	20.84	21.69
40–49 years	148	18.77	1.78	15.52	16.69	17.23	17.57	18.67	19.94	20.65	20.94	21.51
50–59 years	118	19.31	1.92	16.44	16.99	17.43	17.93	19.17	20.35	21.43	22.24	22.58
60–69 years	154	19.34	2.18	16.35	16.79	17.13	17.78	19.03	20.81	21.63	22.43	23.19
70–79 years	67	*19.57	2.18	*16.01	*16.88	*17.18	*17.84	*19.47	*21.19	*21.76	*22.10	*22.42
80 years and over	15	*19.70	1.77	†	†	†	*18.46	*19.76	*20.70	†	†	†
20 years and over, age adjusted	807	18.97	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	742	12.02	1.72	9.38	9.89	10.32	10.85	11.87	13.12	13.80	14.23	15.10
12–15 years	709	15.57	1.84	12.48	13.33	13.81	14.33	15.49	16.80	17.35	17.93	18.94
16–19 years	636	16.49	1.62	13.94	14.47	14.80	15.27	16.47	17.55	18.23	18.74	19.09
20–29 years	604	16.59	1.79	13.85	14.41	14.79	15.36	16.47	17.75	18.40	18.98	19.75
30–39 years	659	16.60	1.74	13.83	14.46	14.80	15.42	16.59	17.65	18.43	19.00	19.67
40–49 years	767	16.73	1.78	14.00	14.56	14.94	15.52	16.57	17.77	18.51	19.04	19.92
50–59 years	626	16.51	1.69	13.83	14.38	14.76	15.22	16.41	17.61	18.39	18.85	19.40
60–69 years	644	16.44	1.80	13.54	14.32	14.71	15.19	16.38	17.50	18.05	18.55	19.38
70–79 years	372	16.44	1.94	13.61	14.05	14.48	15.01	16.21	17.65	18.47	19.05	20.02
80 years and over	193	16.25	2.01	13.05	13.81	14.17	14.77	16.17	17.61	18.05	18.53	19.81
20 years and over, age adjusted	3,865	16.57	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 45. Lumbar spine vertebra 4 (L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	11.60	1.64	9.15	9.52	9.78	10.27	11.61	12.62	13.38	13.73	14.24
12–15 years	228	15.02	1.53	12.44	13.11	13.50	13.98	14.97	16.10	16.66	16.94	17.36
16–19 years	178	15.68	1.41	13.36	13.78	14.26	14.73	15.56	16.48	17.17	17.59	†
20–29 years	146	15.66	1.57	13.41	13.90	14.15	14.47	15.56	16.47	17.28	17.77	†
30–39 years	149	15.78	1.61	13.19	13.57	13.95	14.69	15.96	16.88	17.22	17.52	18.21
40–49 years	138	15.84	1.59	13.45	13.95	14.15	14.67	15.67	16.95	17.64	17.88	†
50–59 years	109	*15.40	1.43	*13.31	*13.62	*13.85	*14.09	*15.36	*16.38	*16.94	*17.42	*17.91
60–69 years	142	15.35	1.54	12.84	13.35	13.87	14.22	15.21	16.19	16.97	17.40	17.92
70–79 years	50	*15.29	1.53	†	*13.46	*13.85	*14.12	*15.21	*16.12	*16.52	*17.05	*17.33
80 years and over	9	*15.09	2.37	†	†	†	†	*14.37	†	†	†	†
20 years and over, age adjusted	743	15.60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	12.03	1.62	9.42	10.17	10.43	10.93	11.83	13.04	13.65	14.11	14.97
12–15 years	179	15.75	1.86	12.62	13.42	13.88	14.34	15.68	16.89	17.59	18.25	19.04
16–19 years	175	16.74	1.57	14.42	14.78	14.94	15.46	16.77	17.68	18.50	18.88	19.34
20–29 years	240	16.86	1.79	14.18	14.70	14.93	15.57	16.72	17.94	18.63	19.25	19.81
30–39 years	268	16.86	1.67	14.13	14.76	15.19	15.73	16.82	17.91	18.60	19.09	19.81
40–49 years	363	16.88	1.70	14.20	14.87	15.29	15.66	16.68	17.85	18.56	19.15	19.99
50–59 years	294	16.70	1.66	13.94	14.61	14.96	15.48	16.57	17.74	18.67	19.00	19.44
60–69 years	275	16.56	1.78	13.71	14.49	14.86	15.36	16.46	17.57	18.12	18.56	19.39
70–79 years	234	16.52	1.95	13.69	14.09	14.57	15.02	16.27	17.78	18.65	19.16	20.06
80 years and over	144	16.28	2.01	13.16	13.83	14.19	14.80	16.18	17.57	18.05	18.54	†
20 years and over, age adjusted	1,818	16.75	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	12.39	1.84	9.48	9.96	10.32	11.01	12.32	13.71	14.26	14.70	15.67
12–15 years	226	15.56	1.78	12.76	13.33	13.87	14.47	15.39	16.57	17.35	17.84	18.96
16–19 years	204	16.26	1.67	13.46	14.00	14.23	15.20	16.39	17.27	18.13	18.58	18.76
20–29 years	131	16.56	1.70	13.61	14.40	15.04	15.56	16.41	17.68	18.40	18.78	19.59
30–39 years	148	16.50	1.83	14.07	14.42	14.65	15.15	16.19	17.63	18.60	19.08	19.85
40–49 years	169	16.96	1.88	14.17	14.54	14.83	15.68	16.81	18.21	19.09	19.36	†
50–59 years	143	16.41	1.75	13.93	14.43	14.67	15.03	16.28	17.49	18.21	18.48	19.31
60–69 years	152	16.54	1.78	13.48	14.18	14.76	15.41	16.43	17.66	18.33	18.85	19.46
70–79 years	57	*16.82	1.81	†	*14.81	*14.94	*15.64	*16.63	*17.90	*18.39	*18.64	†
80 years and over	25	*16.58	1.96	†	†	*14.23	*15.03	*16.34	*17.89	*18.51	*19.02	†
20 years and over, age adjusted	825	16.63	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 46. Lumbar spine vertebrae 1 and 2 (L1, L2) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	19.14	2.37	15.57	16.31	16.76	17.42	18.95	20.59	21.50	22.11	23.71
12–15 years	786	24.86	3.94	18.75	19.78	20.50	21.45	24.63	27.64	29.06	29.81	31.60
16–19 years	774	29.68	3.21	24.52	25.63	26.23	27.53	29.60	31.77	32.82	33.64	35.14
20–29 years	717	30.18	2.88	25.63	26.40	27.14	28.27	30.13	32.04	33.26	34.06	34.88
30–39 years	735	30.59	2.99	25.71	26.84	27.28	28.46	30.57	32.64	33.86	34.52	35.42
40–49 years	692	31.20	2.95	26.37	27.43	28.18	29.40	31.16	32.99	34.15	34.85	36.17
50–59 years	624	31.57	3.26	26.48	27.57	28.18	29.31	31.37	33.82	35.07	35.92	37.08
60–69 years	626	31.76	3.25	26.69	27.81	28.20	29.38	31.84	34.08	34.94	35.85	36.98
70–79 years	408	32.37	3.29	27.05	28.25	28.87	30.01	32.45	34.50	35.72	36.61	37.59
80 years and over	209	32.57	2.98	27.94	28.54	29.18	30.43	32.37	34.48	35.87	36.63	37.70
20 years and over, age adjusted	4,011	31.16	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	18.75	2.15	15.57	16.20	16.52	17.28	18.56	20.07	20.93	21.48	22.38
12–15 years	233	24.70	3.80	18.07	19.56	20.92	22.32	24.41	27.42	28.66	29.07	31.09
16–19 years	216	28.25	3.11	23.73	24.19	25.03	25.89	28.02	30.24	31.38	32.07	33.27
20–29 years	195	28.68	2.57	24.51	25.62	26.02	26.67	28.48	30.32	31.50	32.06	33.09
30–39 years	152	29.46	2.79	25.39	25.71	26.32	27.28	29.23	31.63	32.32	33.06	34.16
40–49 years	146	29.46	2.85	24.68	25.69	26.64	27.62	29.46	31.12	32.20	33.16	34.37
50–59 years	102	29.90	2.55	24.93	26.93	27.28	28.22	29.93	31.23	31.97	33.21	34.60
60–69 years	106	30.58	2.87	26.08	26.67	27.39	28.62	30.44	32.19	33.62	34.15	35.05
70–79 years	36	*29.53	3.42	†	*25.30	*25.67	*27.19	*29.27	*31.79	*32.87	*33.24	†
80 years and over	13	*31.09	3.32	†	†	†	*28.88	*30.28	†	†	†	†
20 years and over, age adjusted	750	29.58	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	19.35	2.40	15.59	16.34	16.89	17.71	19.09	20.71	21.68	22.27	24.46
12–15 years	221	25.06	3.94	18.81	20.04	20.75	21.44	25.15	28.03	29.15	29.93	31.64
16–19 years	225	30.12	3.19	24.62	25.89	26.85	27.88	30.32	31.97	33.00	34.08	35.57
20–29 years	283	30.69	2.68	26.34	27.17	28.02	28.75	30.74	32.47	33.57	34.17	35.17
30–39 years	342	31.20	2.86	26.81	27.48	28.27	29.09	31.28	33.21	34.08	34.72	35.63
40–49 years	316	31.76	2.84	26.85	28.25	29.16	30.04	31.67	33.45	34.46	35.45	36.70
50–59 years	323	31.82	3.22	26.78	27.74	28.62	29.48	31.65	34.15	35.20	35.98	37.24
60–69 years	270	32.24	3.08	27.45	28.12	28.63	30.10	32.31	34.21	35.18	36.04	37.09
70–79 years	263	32.68	3.24	27.47	28.42	29.47	30.54	32.77	34.90	36.09	36.77	37.71
80 years and over	164	32.78	2.90	28.22	28.97	29.48	30.89	32.59	34.66	35.89	36.62	37.71
20 years and over, age adjusted	1,961	31.63	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	18.75	2.18	15.23	16.19	16.69	17.27	18.54	20.07	21.09	21.83	22.32
12–15 years	231	24.40	3.79	18.93	19.76	20.19	21.22	24.26	26.75	28.29	29.18	31.27
16–19 years	256	28.95	3.07	23.70	25.16	25.81	27.06	28.75	30.96	32.42	33.36	34.27
20–29 years	162	29.63	3.07	24.84	25.75	26.29	27.31	29.70	31.49	32.51	33.81	35.46
30–39 years	143	29.69	2.98	24.73	25.84	26.83	27.52	29.65	31.44	32.71	33.63	34.86
40–49 years	145	30.23	2.62	25.70	27.01	27.64	28.21	30.26	31.89	32.46	32.81	†
50–59 years	120	31.14	3.55	25.81	27.16	27.72	28.95	30.74	32.98	34.43	36.12	37.74
60–69 years	176	31.06	3.15	25.93	26.74	27.76	28.76	31.03	33.01	34.53	35.51	35.91
70–79 years	76	*31.21	3.09	*26.88	*27.75	*28.53	*28.89	*30.82	*33.10	*34.21	*35.73	*36.44
80 years and over	20	*31.81	3.20	†	†	*28.42	*29.35	*31.32	*32.90	†	†	†
20 years and over, age adjusted	842	30.38	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	747	18.20	2.40	14.71	15.29	15.82	16.47	17.95	19.55	20.73	21.53	22.85
12–15 years	717	23.63	2.81	19.09	19.93	20.70	21.73	23.59	25.38	26.42	27.25	28.64
16–19 years	678	24.87	2.46	21.08	21.91	22.33	23.01	24.99	26.43	27.24	27.71	28.85
20–29 years	635	25.25	2.63	21.08	21.79	22.54	23.30	25.14	27.05	28.00	28.78	29.48
30–39 years	650	25.35	2.54	21.24	21.99	22.72	23.54	25.28	27.13	28.03	28.68	29.54
40–49 years	776	25.78	2.57	21.57	22.49	23.12	23.97	25.81	27.42	28.38	29.08	30.56
50–59 years	624	25.38	2.51	21.40	22.20	22.77	23.76	25.28	27.23	28.12	28.57	29.46
60–69 years	653	25.38	2.51	21.25	22.04	22.55	23.69	25.35	27.03	28.00	28.66	29.49
70–79 years	399	25.55	2.55	21.44	22.28	23.00	23.72	25.50	27.12	27.85	28.94	30.38
80 years and over	204	25.48	2.76	21.50	22.09	22.84	23.57	25.46	27.17	28.30	29.31	30.06
20 years and over, age adjusted	3,941	25.45	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 46. Lumbar spine vertebrae 1 and 2 (L1, L2) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	238	17.65	2.34	14.39	14.94	15.39	15.93	17.31	19.08	19.93	20.61	21.50
12–15 years	231	22.68	2.24	19.00	19.86	20.34	21.12	22.75	23.98	24.83	25.62	26.35
16–19 years	187	23.77	2.15	20.76	21.30	21.58	22.14	23.34	25.13	26.04	26.37	†
20–29 years	149	24.13	2.32	20.42	21.14	21.55	22.42	23.86	25.84	26.67	27.02	28.16
30–39 years	149	24.31	2.43	19.76	20.98	21.73	22.71	24.33	26.06	26.85	27.44	28.10
40–49 years	141	24.89	2.22	21.23	22.33	22.62	23.07	24.86	26.47	27.21	27.96	†
50–59 years	103	*24.24	2.27	*20.59	*21.33	*21.81	*22.67	*23.99	*25.90	*26.62	*27.30	*28.32
60–69 years	134	*23.96	2.27	*20.75	*21.23	*21.54	*22.32	*23.36	*25.83	*26.45	*26.71	†
70–79 years	46	*23.94	2.64	†	*20.68	*20.95	*21.96	*23.78	*25.65	*26.52	*27.00	†
80 years and over	8	*24.70	4.21	†	†	†	†	*23.19	†	†	†	†
20 years and over, age adjusted	730	24.34	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	201	18.38	2.34	14.74	15.61	16.10	16.73	18.13	19.56	20.80	21.75	22.87
12–15 years	184	24.06	2.93	19.20	20.04	20.79	22.12	23.95	25.86	27.01	27.82	29.67
16–19 years	196	25.31	2.35	21.38	22.45	22.80	23.64	25.34	26.72	27.44	27.94	29.03
20–29 years	258	25.77	2.56	21.62	22.56	23.03	23.84	25.75	27.54	28.60	29.01	29.84
30–39 years	265	25.85	2.47	21.70	22.64	23.27	24.11	25.69	27.61	28.46	29.11	29.82
40–49 years	360	26.07	2.49	22.11	22.92	23.50	24.39	26.03	27.56	28.58	29.20	30.71
50–59 years	299	25.70	2.46	21.61	22.52	22.95	23.95	25.65	27.50	28.21	28.73	29.66
60–69 years	278	25.60	2.51	21.50	22.22	22.73	24.01	25.61	27.17	28.17	28.82	29.62
70–79 years	248	25.80	2.51	21.67	22.70	23.27	23.88	25.68	27.27	28.24	29.21	30.60
80 years and over	153	25.52	2.79	21.55	22.11	22.88	23.72	25.44	27.18	28.42	29.34	30.07
20 years and over, age adjusted	1,861	25.81	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	18.35	2.53	14.69	15.18	15.57	16.29	18.04	19.87	20.98	21.98	23.07
12–15 years	226	23.20	2.52	18.99	19.83	20.70	21.28	23.25	24.87	25.77	26.25	27.35
16–19 years	212	24.20	2.62	19.82	20.98	21.64	22.42	23.93	26.03	27.25	27.61	28.24
20–29 years	138	24.47	2.43	20.24	21.00	21.82	22.77	24.38	25.86	27.01	27.70	28.27
30–39 years	144	24.72	2.62	20.91	21.68	22.25	22.75	24.34	26.52	27.28	27.85	29.02
40–49 years	171	25.43	2.70	20.89	22.16	22.91	23.54	25.31	27.07	28.22	28.82	†
50–59 years	143	24.71	2.61	20.52	21.42	21.89	22.75	24.72	26.14	27.61	28.42	29.05
60–69 years	166	25.01	2.32	21.08	21.72	22.29	23.67	24.89	26.50	27.35	27.97	28.77
70–79 years	73	*24.77	2.32	†	*21.42	*22.15	*23.44	*24.72	*26.07	*27.06	*27.49	*28.10
80 years and over	31	*25.18	2.38	†	*21.79	*22.38	*23.34	*25.36	*26.89	*27.33	*27.37	†
20 years and over, age adjusted	866	24.88	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 47. Lumbar spine vertebrae 1 and 3 (L1, L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	20.13	2.49	16.37	16.98	17.67	18.33	20.04	21.69	22.67	23.25	24.36
12–15 years	786	26.27	4.18	19.84	20.81	21.51	22.69	26.14	29.25	30.52	31.63	33.35
16–19 years	775	31.31	3.31	25.81	26.98	27.88	29.05	31.25	33.36	34.56	35.23	36.91
20–29 years	715	31.76	3.01	26.91	27.85	28.63	29.51	31.61	33.62	34.95	35.76	36.79
30–39 years	729	31.98	3.13	26.82	27.91	28.65	29.76	31.99	34.11	35.46	36.16	37.15
40–49 years	689	32.60	2.96	27.44	28.74	29.50	30.65	32.63	34.39	35.68	36.40	37.45
50–59 years	603	32.73	3.34	27.67	28.50	29.31	30.27	32.53	35.15	36.18	37.06	38.18
60–69 years	590	32.82	3.22	27.75	28.82	29.64	30.65	32.87	35.06	36.17	36.85	37.89
70–79 years	371	33.37	3.18	28.58	29.12	29.94	31.12	33.42	35.35	36.74	37.54	38.72
80 years and over	193	33.53	3.18	28.82	29.54	30.19	31.19	33.01	35.35	37.12	37.90	39.02
20 years and over, age adjusted	3,890	32.46	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	19.70	2.30	16.34	16.81	17.23	18.19	19.33	21.16	21.91	22.73	23.63
12–15 years	232	26.13	3.99	19.15	20.66	22.13	23.48	25.71	29.12	30.42	31.15	32.63
16–19 years	217	29.73	3.14	25.23	25.86	26.23	27.41	29.44	31.62	32.78	33.74	34.66
20–29 years	194	30.18	2.64	25.91	26.66	27.31	28.42	30.11	32.13	33.20	33.66	34.60
30–39 years	152	30.63	2.86	26.32	26.65	27.42	28.69	30.39	32.57	33.44	33.99	35.85
40–49 years	148	30.70	2.95	26.00	27.06	27.52	28.52	30.59	32.48	33.65	34.47	35.19
50–59 years	100	30.98	2.54	26.27	27.92	28.42	29.15	30.86	32.24	33.48	34.35	35.51
60–69 years	105	*31.53	2.92	*26.58	*27.17	*28.17	*29.71	*31.41	*33.26	*34.01	*34.87	*36.55
70–79 years	33	*30.23	2.73	†	*26.59	*27.20	*28.01	*30.49	*31.66	*33.18	*34.23	†
80 years and over	13	*31.72	2.93	†	†	†	*29.29	*31.03	†	†	†	†
20 years and over, age adjusted	745	30.73	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	20.34	2.51	16.38	17.09	18.00	18.54	20.20	21.73	22.78	23.58	24.95
12–15 years	221	26.43	4.18	19.92	20.84	21.72	22.61	26.45	29.65	30.67	31.58	33.36
16–19 years	225	31.78	3.29	26.03	27.41	28.32	29.51	31.94	33.81	34.72	35.80	37.62
20–29 years	282	32.25	2.85	27.32	28.65	29.16	30.55	32.24	34.11	35.33	35.90	36.80
30–39 years	338	32.62	2.99	27.74	28.61	29.29	30.60	32.55	34.80	35.88	36.53	37.28
40–49 years	312	33.17	2.81	28.44	29.57	30.30	31.47	33.09	35.05	36.13	36.70	37.63
50–59 years	313	33.00	3.30	27.87	28.95	29.59	30.50	32.92	35.34	36.29	37.21	38.19
60–69 years	252	33.30	3.01	28.43	29.35	30.07	30.99	33.35	35.30	36.34	37.06	37.95
70–79 years	239	33.68	3.14	28.71	29.78	30.39	31.54	33.87	35.63	36.95	38.10	38.85
80 years and over	150	33.75	3.11	29.03	29.83	30.59	31.49	33.24	35.49	37.13	38.26	†
20 years and over, age adjusted	1,886	32.94	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	19.80	2.27	16.32	17.04	17.72	18.28	19.77	21.34	22.29	22.78	23.48
12–15 years	232	25.84	4.03	19.98	20.76	21.33	22.51	25.60	28.53	30.11	30.54	33.17
16–19 years	256	30.59	3.17	25.10	26.55	27.52	28.65	30.11	32.65	34.15	34.91	36.03
20–29 years	163	31.31	3.21	25.86	27.08	28.08	29.18	31.11	33.13	34.54	35.38	37.01
30–39 years	142	31.14	3.16	25.88	27.18	27.84	28.72	31.26	33.05	34.17	35.29	36.50
40–49 years	144	31.95	2.75	27.07	28.62	29.06	30.19	31.92	33.72	34.28	34.82	36.27
50–59 years	114	32.63	3.61	27.52	28.10	29.24	29.78	32.21	35.02	36.05	37.90	38.99
60–69 years	160	32.15	3.10	27.37	27.94	28.90	29.73	32.01	33.93	35.35	36.42	37.33
70–79 years	70	*32.53	3.10	*28.37	*28.75	*29.03	*29.82	*32.00	*34.70	*36.18	*36.90	*37.51
80 years and over	18	*33.03	3.46	†	†	†	*30.20	*32.43	*34.24	†	†	†
20 years and over, age adjusted	811	31.89	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	19.14	2.58	15.46	16.15	16.56	17.30	18.94	20.48	21.76	22.79	24.03
12–15 years	714	25.01	2.94	20.10	21.14	21.95	23.08	24.87	26.86	27.80	28.60	30.68
16–19 years	661	26.39	2.51	22.41	23.34	23.77	24.66	26.33	27.96	28.81	29.70	30.66
20–29 years	624	26.76	2.71	22.56	23.33	23.84	24.59	26.77	28.59	29.60	30.45	31.17
30–39 years	650	26.82	2.62	22.63	23.53	24.08	24.83	26.75	28.49	29.58	30.18	31.08
40–49 years	777	27.23	2.67	22.87	23.93	24.44	25.34	27.08	28.90	29.97	30.80	31.94
50–59 years	614	26.80	2.49	22.89	23.61	24.10	25.03	26.67	28.70	29.61	30.02	30.85
60–69 years	630	26.73	2.50	22.74	23.28	23.95	24.98	26.75	28.35	29.24	29.87	30.80
70–79 years	375	26.79	2.58	22.69	23.55	24.17	25.19	26.57	28.26	29.19	30.14	31.77
80 years and over	188	26.67	2.81	22.22	23.27	23.91	24.73	26.58	28.33	29.44	30.38	31.78
20 years and over, age adjusted	3,858	26.88	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 47. Lumbar spine vertebrae 1 and 3 (L1, L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	18.54	2.48	15.10	15.57	16.17	16.64	18.29	20.09	21.00	21.62	22.87
12–15 years	231	24.13	2.39	20.08	20.99	21.45	22.51	24.21	25.83	26.47	27.06	27.68
16–19 years	184	25.29	2.18	22.25	22.65	22.96	23.79	25.04	26.56	27.47	28.17	†
20–29 years	148	25.54	2.38	21.85	22.69	23.04	23.75	25.42	27.33	28.04	28.58	29.11
30–39 years	149	25.68	2.52	21.38	22.06	23.02	23.95	25.54	27.48	28.40	28.98	29.54
40–49 years	140	26.25	2.20	22.36	23.54	24.06	24.65	26.12	27.80	28.80	29.44	†
50–59 years	106	*25.53	2.25	*21.83	*22.72	*23.19	*23.79	*25.32	*26.94	*27.72	*28.82	*29.51
60–69 years	135	*25.10	2.29	*21.54	*22.15	*22.67	*23.38	*25.06	*26.80	*27.41	*28.02	*28.98
70–79 years	46	*25.21	2.41	†	*22.09	*22.38	*23.42	*24.88	*26.66	*27.66	*27.94	†
80 years and over	10	*24.87	3.37	†	†	†	†	*23.97	*26.10	†	†	†
20 years and over, age adjusted	734	25.62	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	19.31	2.52	15.62	16.37	16.84	17.42	19.19	20.46	21.82	22.93	23.84
12–15 years	181	25.39	3.05	20.11	21.51	21.96	23.47	25.32	27.21	28.18	29.28	31.41
16–19 years	188	26.82	2.41	23.27	23.77	24.50	25.06	26.69	28.16	29.36	29.82	30.80
20–29 years	256	27.27	2.60	23.15	23.84	24.43	25.20	27.27	29.06	29.90	30.85	31.70
30–39 years	265	27.31	2.53	23.02	24.08	24.72	25.43	27.41	28.93	30.00	30.56	31.50
40–49 years	363	27.49	2.58	23.51	24.19	24.82	25.67	27.37	29.02	30.10	30.90	32.10
50–59 years	289	27.14	2.46	23.30	23.74	24.36	25.33	27.08	29.14	29.79	30.09	31.11
60–69 years	268	26.96	2.47	23.00	23.54	24.42	25.29	26.93	28.52	29.51	30.28	31.05
70–79 years	230	27.00	2.55	22.87	23.99	24.36	25.43	26.81	28.40	29.46	30.50	31.99
80 years and over	141	26.72	2.82	22.39	23.29	23.99	24.81	26.61	28.30	29.37	30.50	31.84
20 years and over, age adjusted	1,812	27.23	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	19.39	2.72	15.40	15.92	16.49	17.47	19.04	21.03	22.23	23.06	24.51
12–15 years	226	24.76	2.74	20.11	21.14	22.07	22.78	24.65	26.66	27.25	28.26	29.21
16–19 years	207	25.85	2.72	21.39	22.69	23.18	24.05	25.49	27.69	28.91	29.46	30.52
20–29 years	133	26.20	2.64	21.62	22.67	23.60	24.01	26.12	27.88	29.17	29.60	30.57
30–39 years	144	26.34	2.73	22.63	23.48	23.66	24.24	25.82	28.25	29.46	29.75	30.74
40–49 years	171	27.07	2.84	22.27	23.31	24.03	25.14	26.84	28.63	30.26	30.54	†
50–59 years	139	26.18	2.58	22.41	23.06	23.44	24.17	25.99	27.78	29.02	29.71	†
60–69 years	153	26.51	2.40	22.60	23.07	23.63	24.74	26.59	28.03	28.74	29.35	30.44
70–79 years	70	*26.30	2.29	*22.03	*23.13	*24.10	*24.75	*26.13	*27.67	*28.68	*29.20	*29.85
80 years and over	26	*26.75	2.76	†	†	*24.19	*24.89	*26.70	*28.51	*29.24	*29.85	†
20 years and over, age adjusted	836	26.48	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 48. Lumbar spine vertebrae 1 and 4 (L1, L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	21.90	2.74	17.73	18.49	18.99	20.02	21.69	23.71	24.68	25.48	26.74
12–15 years	786	28.03	4.30	21.05	22.49	23.20	24.67	28.00	31.38	32.49	33.51	35.33
16–19 years	774	33.21	3.54	27.39	28.60	29.53	30.86	33.03	35.52	36.92	37.90	39.36
20–29 years	709	33.56	3.21	28.41	29.41	30.17	31.30	33.57	35.81	36.80	37.54	38.77
30–39 years	722	33.66	3.21	28.64	29.40	30.34	31.37	33.61	35.93	37.27	38.01	38.77
40–49 years	676	34.31	3.16	29.01	30.25	30.87	32.25	34.40	36.50	37.57	38.11	39.16
50–59 years	599	34.58	3.45	29.17	30.45	31.00	31.92	34.59	36.87	38.12	38.94	39.89
60–69 years	559	34.73	3.26	29.51	30.56	31.47	32.49	34.77	37.07	38.09	38.79	39.81
70–79 years	363	35.09	3.36	29.27	30.83	31.75	32.91	35.00	37.26	38.46	39.46	40.52
80 years and over	179	35.36	3.25	29.98	31.10	31.67	33.02	35.18	37.79	38.95	39.91	40.67
20 years and over, age adjusted	3,807	34.23	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	21.23	2.48	17.46	18.17	18.82	19.49	21.06	22.71	23.80	24.28	25.52
12–15 years	233	27.76	4.13	20.88	22.61	23.70	25.03	27.27	30.64	32.26	33.12	34.20
16–19 years	217	31.29	3.23	26.71	27.55	27.85	28.72	31.09	33.21	34.50	35.42	36.52
20–29 years	193	31.64	2.72	27.42	28.06	28.89	29.63	31.45	33.08	34.76	35.53	36.72
30–39 years	149	32.23	3.06	27.50	28.42	28.86	29.77	32.22	34.15	35.50	36.29	37.12
40–49 years	143	32.34	3.10	27.30	28.02	29.59	30.15	32.14	34.24	34.80	36.43	37.31
50–59 years	101	32.45	2.61	27.92	29.38	29.86	30.63	32.12	33.92	35.25	35.92	37.04
60–69 years	98	*33.19	3.20	*28.04	*28.48	*29.32	*30.67	*33.34	*35.08	*36.42	*37.33	*38.46
70–79 years	37	*32.11	3.10	†	†	*28.08	*29.97	*31.93	*33.36	*35.23	*36.15	*36.77
80 years and over	12	*33.83	3.20	†	†	†	†	*32.97	*34.62	†	†	†
20 years and over, age adjusted	733	32.34	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	22.18	2.75	17.94	18.65	19.37	20.38	21.97	23.79	24.98	25.82	27.55
12–15 years	220	28.18	4.30	21.02	22.54	23.25	24.74	28.15	31.53	32.49	33.69	35.40
16–19 years	225	33.74	3.55	27.72	29.08	30.18	31.50	33.71	35.95	37.42	38.39	39.59
20–29 years	282	34.16	2.97	29.25	30.20	31.07	32.09	34.21	36.20	37.02	37.76	39.01
30–39 years	333	34.31	3.10	29.08	30.41	31.10	32.14	34.37	36.63	37.77	38.14	39.01
40–49 years	306	34.93	3.02	29.83	30.70	31.88	33.10	34.91	36.80	37.99	38.37	39.68
50–59 years	312	34.85	3.46	29.23	30.54	31.19	32.38	34.83	37.12	38.43	39.13	39.88
60–69 years	245	35.16	2.95	30.22	31.45	31.99	32.87	35.12	37.26	38.18	38.96	39.85
70–79 years	233	35.39	3.28	29.80	31.12	32.16	33.30	35.33	37.77	38.72	39.66	40.87
80 years and over	143	35.55	3.22	30.01	31.19	31.76	33.30	35.27	37.87	39.17	40.11	40.69
20 years and over, age adjusted	1,854	34.73	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	21.51	2.43	17.43	18.47	18.97	19.92	21.45	23.00	24.02	24.83	25.88
12–15 years	232	27.80	4.27	21.59	22.49	22.98	24.25	27.60	30.26	31.99	33.38	35.67
16–19 years	255	32.54	3.37	27.01	28.45	29.11	30.16	32.21	34.87	36.35	37.02	38.77
20–29 years	158	33.05	3.41	27.75	29.02	29.61	30.97	32.43	35.33	36.93	37.85	39.00
30–39 years	143	32.90	3.19	27.41	29.03	29.45	31.10	32.60	34.87	36.30	36.84	38.27
40–49 years	141	33.44	2.79	28.29	30.10	30.70	31.63	33.49	35.20	36.13	36.68	37.40
50–59 years	111	34.10	3.38	28.63	30.13	30.92	31.84	33.47	36.32	37.43	38.83	40.60
60–69 years	144	34.29	3.49	29.32	30.02	30.86	31.88	33.62	36.19	38.01	38.69	40.60
70–79 years	66	*34.68	3.36	*29.77	*31.07	*31.37	*32.04	*34.20	*36.61	*38.24	*39.29	*39.71
80 years and over	14	*34.78	2.89	†	†	†	*32.18	*34.19	*35.78	†	†	†
20 years and over, age adjusted	777	33.61	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	20.75	2.77	16.49	17.39	17.98	18.91	20.41	22.46	23.65	24.37	26.05
12–15 years	708	26.83	3.08	21.65	23.04	23.71	24.83	26.55	28.75	29.97	30.95	32.59
16–19 years	634	28.41	2.66	24.42	25.13	25.64	26.44	28.45	30.19	31.17	31.73	32.76
20–29 years	598	28.64	2.92	24.11	24.99	25.62	26.48	28.56	30.41	31.60	32.50	33.86
30–39 years	645	28.74	2.84	24.05	25.21	25.86	26.74	28.52	30.60	31.65	32.58	33.56
40–49 years	752	29.00	2.87	24.35	25.59	26.19	27.01	28.85	30.80	31.88	32.64	33.80
50–59 years	599	28.61	2.70	24.28	25.18	25.75	26.73	28.48	30.42	31.67	32.26	33.12
60–69 years	614	28.65	2.75	24.10	25.05	25.71	26.81	28.56	30.51	31.33	31.92	32.71
70–79 years	342	28.65	2.98	23.89	25.22	25.72	26.58	28.34	30.50	31.67	32.56	34.21
80 years and over	175	28.54	2.99	23.63	24.94	25.54	26.54	28.12	30.56	31.59	32.26	33.57
20 years and over, age adjusted	3,725	28.73	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 48. Lumbar spine vertebrae 1 and 4 (L1, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	20.05	2.64	16.14	16.75	17.19	17.96	19.78	21.79	22.69	23.47	24.49
12–15 years	228	25.79	2.48	21.54	22.70	23.33	24.20	25.84	27.47	28.46	28.75	30.02
16–19 years	178	27.02	2.29	23.55	24.12	24.82	25.53	26.77	28.10	29.05	30.29	31.45
20–29 years	145	27.20	2.55	23.48	24.04	24.70	25.27	26.91	28.88	29.71	30.37	†
30–39 years	149	27.37	2.64	22.95	23.55	24.28	25.80	27.46	28.81	30.13	30.82	31.20
40–49 years	137	27.73	2.51	24.10	24.69	25.09	25.77	27.65	29.66	30.43	30.99	†
50–59 years	103	*26.93	2.32	*23.77	*24.10	*24.32	*25.12	*26.92	*28.06	*29.27	*29.87	*31.43
60–69 years	130	*26.85	2.50	*22.97	*23.61	*24.24	*24.90	*27.00	*28.59	*29.57	*30.12	*30.90
70–79 years	44	*26.67	2.50	†	*23.36	*24.18	*25.00	*26.71	*27.80	*28.35	*29.66	†
80 years and over	9	*26.65	4.53	†	†	†	†	*24.59	†	†	†	†
20 years and over, age adjusted	717	27.20	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	20.87	2.66	16.55	17.90	18.19	19.13	20.49	22.42	23.65	24.40	25.77
12–15 years	179	27.22	3.18	21.66	23.24	23.85	25.15	26.88	29.12	30.48	31.97	32.83
16–19 years	174	28.91	2.53	24.90	25.65	26.15	26.86	28.90	30.47	31.52	31.88	32.88
20–29 years	237	29.17	2.86	24.52	25.58	26.12	27.08	29.02	31.01	32.34	32.94	34.12
30–39 years	260	29.27	2.73	24.94	25.79	26.20	27.47	29.30	31.04	32.04	32.96	33.63
40–49 years	354	29.30	2.75	24.94	26.10	26.55	27.34	29.24	30.97	32.16	32.66	34.30
50–59 years	284	28.98	2.65	24.40	25.55	26.17	27.02	28.96	30.62	32.00	32.37	33.41
60–69 years	264	28.90	2.73	24.13	25.43	25.98	27.12	28.68	30.82	31.55	32.04	33.00
70–79 years	217	28.82	2.98	23.95	25.43	25.79	26.68	28.45	30.83	31.72	32.90	34.27
80 years and over	132	28.59	2.96	23.64	25.19	25.65	26.57	28.02	30.60	31.64	32.36	†
20 years and over, age adjusted	1,748	29.11	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	21.11	2.93	16.74	17.18	17.65	19.11	20.70	23.00	24.13	24.88	26.50
12–15 years	225	26.62	2.88	22.07	23.11	23.84	24.68	26.48	28.18	29.40	30.24	31.82
16–19 years	203	27.85	2.74	23.22	24.60	24.91	26.11	27.71	29.76	30.97	31.21	31.69
20–29 years	130	28.18	2.73	23.23	24.80	25.64	26.29	28.00	29.93	30.85	31.98	32.64
30–39 years	144	28.24	2.97	24.04	24.82	25.20	26.06	27.58	30.03	31.69	32.51	33.31
40–49 years	165	28.99	3.04	24.23	25.14	25.97	27.01	28.61	30.61	32.20	32.98	†
50–59 years	134	28.13	2.75	24.49	25.13	25.29	25.98	27.97	29.53	31.29	31.72	†
60–69 years	148	28.43	2.65	23.60	24.68	25.40	26.88	28.45	30.12	31.02	31.86	32.97
70–79 years	55	*28.68	2.66	*23.91	*25.41	*26.05	*26.71	*28.81	*29.98	*31.39	*31.97	†
80 years and over	23	*28.44	2.92	†	†	*24.85	*26.49	*28.20	*30.30	*30.92	†	†
20 years and over, age adjusted	799	28.44	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 49. Lumbar spine vertebrae 2 and 3 (L2, L3) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	20.82	2.54	16.97	17.78	18.29	18.91	20.62	22.33	23.30	23.99	25.32
12–15 years	787	27.33	4.35	20.71	21.70	22.40	23.70	27.29	30.46	31.97	33.22	34.63
16–19 years	776	32.37	3.42	26.87	28.02	28.82	30.03	32.39	34.76	35.73	36.62	37.97
20–29 years	720	32.80	3.05	27.72	28.95	29.48	30.58	32.77	34.93	35.99	36.70	38.06
30–39 years	741	33.01	3.21	27.75	28.76	29.54	30.80	33.00	35.15	36.56	37.25	38.20
40–49 years	709	33.54	3.14	28.54	29.44	30.30	31.41	33.43	35.54	36.98	37.72	38.78
50–59 years	632	33.74	3.40	28.68	29.61	30.20	31.40	33.74	36.05	37.39	38.22	39.50
60–69 years	612	33.75	3.34	28.75	29.66	30.36	31.39	33.74	36.16	37.10	37.89	39.12
70–79 years	387	34.29	3.37	29.00	30.09	30.71	32.04	34.37	36.30	37.79	38.42	39.56
80 years and over	202	34.46	3.27	29.54	30.43	30.95	32.06	34.18	36.54	38.07	39.04	39.87
20 years and over, age adjusted	4,003	33.45	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	20.30	2.46	16.38	17.17	17.43	18.68	20.21	21.76	22.86	23.42	24.29
12–15 years	233	27.18	4.18	19.80	21.15	23.02	24.19	26.77	30.20	31.48	32.47	33.95
16–19 years	216	30.92	3.27	26.04	26.82	27.04	28.52	30.68	33.06	34.15	34.55	36.36
20–29 years	196	31.24	2.72	26.93	27.39	28.35	29.38	31.14	33.01	34.00	34.97	35.75
30–39 years	156	31.81	2.92	27.09	27.96	28.55	29.52	31.67	33.85	34.72	35.58	36.78
40–49 years	151	31.68	3.08	26.47	27.77	28.62	29.69	31.36	33.41	35.13	35.83	36.92
50–59 years	104	32.11	2.76	26.85	28.38	29.10	30.25	32.30	33.85	34.76	35.23	36.70
60–69 years	108	*32.56	2.98	*27.65	*28.58	*29.45	*30.82	*32.21	*34.44	*35.76	*36.25	*37.50
70–79 years	36	*31.24	3.50	†	†	*27.45	*28.66	*31.59	*33.55	*34.81	*35.43	†
80 years and over	13	*32.86	3.27	†	†	†	*30.35	*32.04	†	†	†	†
20 years and over, age adjusted	764	31.80	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	207	21.02	2.55	16.90	18.07	18.53	19.16	20.87	22.49	23.44	24.34	25.72
12–15 years	221	27.47	4.32	20.80	21.61	22.48	23.66	27.55	30.70	32.09	33.14	34.25
16–19 years	226	32.83	3.40	27.19	28.47	29.15	30.39	33.13	35.19	36.01	36.85	38.38
20–29 years	286	33.29	2.88	28.47	29.43	29.93	31.41	33.23	35.22	36.27	37.00	38.14
30–39 years	340	33.66	3.08	28.63	29.59	30.47	31.57	33.70	35.87	36.95	37.66	38.56
40–49 years	321	34.12	2.97	28.98	30.41	31.11	32.26	34.05	36.28	37.23	37.86	39.04
50–59 years	325	33.97	3.37	28.80	29.76	30.32	31.63	33.88	36.44	37.51	38.35	39.50
60–69 years	267	34.19	3.17	29.22	30.04	30.74	31.69	34.33	36.47	37.27	38.16	39.17
70–79 years	254	34.56	3.34	29.33	30.27	30.89	32.42	34.47	36.81	38.09	38.70	39.57
80 years and over	156	34.71	3.17	30.02	30.73	31.53	32.54	34.50	36.76	38.19	39.11	39.90
20 years and over, age adjusted	1,949	33.91	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	20.67	2.31	17.21	17.89	18.34	19.09	20.49	22.13	23.16	23.68	24.76
12–15 years	231	26.93	4.19	20.66	21.69	22.44	23.41	26.58	29.51	31.21	32.39	34.11
16–19 years	257	31.60	3.24	26.29	27.75	28.41	29.53	31.19	33.75	35.28	36.25	37.23
20–29 years	162	32.30	3.25	26.90	28.07	28.88	30.13	32.12	34.22	35.66	36.60	37.88
30–39 years	145	32.08	3.25	26.65	28.01	28.84	29.70	32.01	34.22	35.32	36.51	37.49
40–49 years	151	32.84	3.06	27.88	29.23	29.82	31.15	32.61	34.91	35.76	36.21	37.85
50–59 years	120	33.90	3.73	28.69	29.16	29.79	31.45	33.56	36.04	37.41	38.46	40.38
60–69 years	167	33.21	3.32	28.25	28.94	29.44	30.94	32.96	35.43	36.62	37.72	39.24
70–79 years	68	*33.53	3.10	*29.54	*30.13	*30.20	*30.82	*32.86	*35.57	*37.02	*37.67	*38.96
80 years and over	19	*34.07	3.37	†	†	*31.17	*31.48	*33.55	*35.52	†	†	†
20 years and over, age adjusted	832	32.90	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	19.90	2.77	15.97	16.71	17.05	17.77	19.64	21.46	22.91	23.75	24.99
12–15 years	715	26.09	3.08	21.09	22.11	22.92	24.06	25.95	28.02	29.13	30.00	31.95
16–19 years	662	27.45	2.61	23.54	24.19	24.72	25.47	27.39	28.96	29.99	30.86	31.72
20–29 years	628	27.89	2.92	23.37	24.36	24.78	25.73	27.71	29.86	30.79	31.77	32.73
30–39 years	659	27.90	2.75	23.48	24.43	24.93	25.85	27.81	29.76	30.78	31.61	32.22
40–49 years	778	28.43	2.79	23.82	24.77	25.60	26.61	28.25	30.19	31.35	32.15	33.11
50–59 years	629	27.86	2.62	23.67	24.41	25.03	25.96	27.78	29.74	30.83	31.34	31.94
60–69 years	646	27.90	2.68	23.30	24.26	25.02	26.17	27.90	29.47	30.67	31.43	32.44
70–79 years	380	27.98	2.73	23.65	24.59	25.23	26.19	27.72	29.81	30.65	31.35	33.12
80 years and over	188	27.74	3.01	23.27	24.09	24.61	25.60	27.57	29.58	30.89	31.62	32.87
20 years and over, age adjusted	3,908	28.01	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 49. Lumbar spine vertebrae 2 and 3 (L2, L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	19.29	2.73	15.47	16.30	16.58	17.19	18.93	20.93	21.88	22.82	24.01
12–15 years	231	25.24	2.45	21.21	22.02	22.44	23.55	25.20	27.04	27.70	28.18	29.03
16–19 years	184	26.39	2.28	23.02	23.70	23.98	24.70	26.24	27.73	28.54	29.39	31.36
20–29 years	149	26.59	2.56	22.47	23.56	24.07	24.73	26.26	28.24	29.53	30.04	30.71
30–39 years	149	26.82	2.69	22.05	23.18	23.91	24.90	26.80	28.58	29.76	30.28	31.07
40–49 years	141	27.41	2.36	23.74	24.43	24.95	25.74	27.31	29.13	29.74	30.67	†
50–59 years	107	26.63	2.48	22.33	23.48	23.95	24.94	26.43	28.43	29.25	30.07	30.60
60–69 years	143	*26.18	2.37	*22.49	*23.06	*23.66	*24.36	*26.03	*27.87	*28.59	*29.01	*30.33
70–79 years	49	*26.37	2.81	†	*22.70	*23.61	*24.42	*25.93	*28.10	*29.20	*29.75	†
80 years and over	8	*26.22	3.58	†	†	†	†	*26.14	†	†	†	†
20 years and over, age adjusted	746	26.75	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	20.05	2.66	16.29	16.99	17.44	18.07	19.75	21.45	22.86	23.70	24.65
12–15 years	181	26.45	3.21	21.10	22.11	23.00	24.52	26.30	28.35	29.48	30.50	32.49
16–19 years	189	27.86	2.55	24.05	24.65	25.13	25.84	27.84	29.26	30.13	30.95	32.25
20–29 years	259	28.40	2.88	24.13	24.72	25.29	26.19	28.26	30.22	31.48	32.08	33.03
30–39 years	270	28.35	2.68	23.76	24.94	25.48	26.58	28.23	30.08	31.23	31.85	32.59
40–49 years	363	28.69	2.68	24.25	25.23	26.03	26.86	28.51	30.24	31.41	32.27	33.20
50–59 years	295	28.14	2.57	23.97	24.55	25.43	26.23	28.16	30.02	30.95	31.43	32.00
60–69 years	271	28.14	2.65	23.50	24.51	25.49	26.43	27.98	29.60	31.03	31.51	32.79
70–79 years	229	28.24	2.67	23.93	24.96	25.52	26.50	27.95	29.91	30.89	31.60	33.29
80 years and over	140	27.81	2.99	23.29	24.40	24.96	25.72	27.58	29.56	30.89	31.79	32.92
20 years and over, age adjusted	1,827	28.34	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	20.30	2.93	16.07	16.65	16.95	18.23	20.05	22.44	23.51	24.19	25.82
12–15 years	227	25.85	2.83	21.27	22.35	22.90	23.76	25.83	27.63	28.58	29.66	30.28
16–19 years	207	26.91	2.81	22.51	23.54	24.17	24.88	26.59	28.71	30.06	30.82	31.71
20–29 years	132	27.46	2.83	22.76	23.83	24.72	25.26	27.54	29.49	30.30	30.77	32.09
30–39 years	147	27.62	2.86	23.88	24.51	24.81	25.28	27.03	29.46	30.75	31.55	32.31
40–49 years	171	28.33	2.97	23.62	24.32	24.95	26.30	28.10	30.06	31.71	32.33	†
50–59 years	147	27.37	2.74	23.29	24.00	24.58	25.42	27.24	29.09	30.34	31.40	32.41
60–69 years	155	27.77	2.53	23.69	24.33	24.98	25.98	27.65	29.32	30.16	31.23	32.31
70–79 years	69	*27.60	2.44	†	*23.94	*24.78	*25.91	*27.47	*29.17	*30.30	*30.68	*31.19
80 years and over	28	*27.93	3.16	†	†	*23.89	*24.93	*27.74	*30.33	*31.29	*31.56	†
20 years and over, age adjusted	849	27.73	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 50. Lumbar spine vertebrae 2 and 4 (L2, L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	22.59	2.74	18.43	19.28	19.70	20.63	22.52	24.26	25.25	26.28	27.59
12–15 years	787	29.09	4.45	22.16	23.40	24.14	25.53	28.88	32.45	33.84	34.86	36.40
16–19 years	775	34.26	3.61	28.31	29.61	30.47	31.86	34.18	36.91	38.15	39.04	40.39
20–29 years	714	34.61	3.24	29.20	30.34	31.21	32.25	34.54	36.80	37.98	38.54	40.05
30–39 years	733	34.68	3.26	29.24	30.48	31.29	32.40	34.70	36.94	38.37	39.05	39.78
40–49 years	694	35.24	3.31	30.00	31.05	31.77	33.08	35.18	37.48	38.61	39.29	40.61
50–59 years	621	35.56	3.48	30.12	31.18	31.92	33.16	35.64	37.81	39.19	39.78	41.26
60–69 years	566	35.65	3.38	30.00	31.22	32.19	33.32	35.55	38.06	39.25	39.96	41.23
70–79 years	374	35.98	3.49	30.11	31.23	32.41	33.89	36.13	38.28	39.54	40.46	41.55
80 years and over	179	36.32	3.25	30.75	32.11	32.97	34.00	35.91	38.59	40.31	40.88	41.70
20 years and over, age adjusted	3,881	35.21	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	211	21.84	2.59	17.60	18.57	19.09	19.91	21.66	23.46	24.38	24.93	26.25
12–15 years	234	28.80	4.29	21.50	23.26	24.62	25.97	28.38	31.65	33.44	34.65	35.74
16–19 years	216	32.47	3.35	27.72	28.24	28.72	29.84	32.43	34.62	35.72	36.46	38.06
20–29 years	195	32.70	2.78	28.54	29.17	29.81	30.76	32.53	34.33	35.45	36.44	37.95
30–39 years	153	33.42	3.07	28.39	29.47	30.09	30.87	33.35	35.43	36.54	37.13	38.73
40–49 years	146	33.29	3.23	28.19	29.39	30.03	30.96	33.16	35.09	36.30	37.21	39.02
50–59 years	103	33.51	2.73	28.25	30.34	30.75	31.55	33.46	35.17	36.42	37.30	37.99
60–69 years	99	*34.25	3.22	*29.38	*29.62	*30.25	*31.94	*34.19	*36.61	*37.69	*38.59	*39.55
70–79 years	40	*33.16	3.40	†	†	†	*30.81	*32.85	*34.68	*37.58	*37.74	†
80 years and over	12	*34.98	3.52	†	†	†	*32.42	*33.71	†	†	†	†
20 years and over, age adjusted	748	33.41	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	207	22.86	2.73	18.76	19.48	19.96	20.85	22.74	24.29	25.35	26.65	27.94
12–15 years	220	29.22	4.43	22.12	23.49	24.33	25.57	29.19	32.58	33.91	34.97	36.30
16–19 years	226	34.78	3.62	28.95	29.92	30.98	32.41	34.89	37.27	38.47	39.71	40.63
20–29 years	286	35.19	3.01	30.21	31.27	31.78	33.00	35.33	37.13	38.04	38.73	40.13
30–39 years	335	35.33	3.16	30.34	31.31	32.12	33.14	35.27	37.86	38.73	39.19	39.85
40–49 years	314	35.86	3.14	30.68	31.55	32.72	34.03	35.81	38.04	39.00	39.49	40.70
50–59 years	320	35.81	3.51	30.42	31.25	32.11	33.33	35.77	38.09	39.26	40.02	41.54
60–69 years	251	36.06	3.11	30.82	31.87	32.76	33.88	35.96	38.34	39.30	40.07	41.22
70–79 years	244	36.24	3.45	30.47	31.55	32.60	34.19	36.41	38.45	39.62	40.74	41.78
80 years and over	140	36.58	3.16	31.34	32.31	33.20	34.31	36.12	39.00	40.38	40.88	41.63
20 years and over, age adjusted	1,890	35.70	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	22.37	2.44	18.49	19.20	19.84	20.75	22.18	23.83	25.13	25.76	26.82
12–15 years	231	28.88	4.40	22.76	23.42	24.01	25.25	28.65	31.55	33.34	34.56	37.60
16–19 years	256	33.55	3.43	27.80	29.51	30.14	31.17	33.40	35.77	37.41	38.09	39.63
20–29 years	157	34.04	3.42	28.61	29.97	30.48	31.94	33.69	35.92	37.89	39.15	39.93
30–39 years	145	33.86	3.20	28.60	29.72	30.58	31.76	33.86	35.97	37.42	38.10	39.12
40–49 years	148	34.34	3.10	29.28	30.87	31.45	32.23	34.23	36.68	37.42	37.82	38.66
50–59 years	116	35.30	3.41	30.02	30.90	32.08	32.95	34.88	37.48	39.06	39.72	41.13
60–69 years	149	35.30	3.62	30.02	30.82	31.42	32.65	34.97	37.44	38.94	40.09	41.95
70–79 years	63	*35.67	3.31	*30.78	*31.55	*32.03	*33.26	*35.09	*37.82	*38.79	*39.81	†
80 years and over	15	*35.78	2.66	†	†	†	*33.61	*35.23	*37.09	†	†	†
20 years and over, age adjusted	793	34.61	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	21.51	2.93	17.17	17.98	18.44	19.49	21.17	23.27	24.52	25.30	26.91
12–15 years	709	27.90	3.20	22.57	23.93	24.66	25.85	27.70	29.99	31.00	31.92	33.89
16–19 years	635	29.46	2.72	25.45	26.01	26.58	27.44	29.46	31.35	32.10	32.79	33.86
20–29 years	603	29.78	3.10	25.08	26.10	26.66	27.44	29.60	31.68	32.87	33.75	35.11
30–39 years	654	29.82	2.91	25.05	26.11	26.82	27.76	29.76	31.72	32.89	33.69	34.78
40–49 years	753	30.19	2.95	25.57	26.57	27.30	28.16	30.05	32.00	33.13	34.06	35.62
50–59 years	613	29.68	2.80	25.40	26.17	26.69	27.52	29.56	31.60	32.83	33.49	34.21
60–69 years	620	29.73	2.93	24.87	25.78	26.69	27.78	29.77	31.50	32.55	33.24	34.51
70–79 years	343	29.82	3.09	25.14	26.03	26.59	27.55	29.55	31.65	32.87	34.18	35.51
80 years and over	164	29.53	3.12	24.89	25.92	26.50	27.33	29.27	31.53	32.54	33.38	34.79
20 years and over, age adjusted	3,750	29.85	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 50. Lumbar spine vertebrae 2 and 4 (L2, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	20.80	2.86	16.66	17.47	17.79	18.52	20.58	22.68	23.63	24.52	25.31
12–15 years	228	26.91	2.54	22.72	23.64	24.40	25.24	26.91	28.82	29.67	29.99	31.02
16–19 years	178	28.12	2.38	24.47	25.05	25.89	26.44	28.10	29.32	30.33	31.69	32.81
20–29 years	146	28.26	2.70	24.17	25.10	25.65	26.31	27.83	30.12	31.24	31.73	†
30–39 years	149	28.51	2.77	23.80	24.37	25.43	26.64	28.77	30.28	31.39	31.94	32.25
40–49 years	138	28.88	2.62	24.89	25.54	26.15	26.85	28.57	30.92	31.46	32.34	†
50–59 years	103	*28.01	2.53	*24.34	*24.63	*25.05	*25.99	*27.92	*29.46	*30.46	*31.26	*32.85
60–69 years	137	*27.89	2.53	*23.75	*24.85	*25.27	*25.90	*27.69	*29.53	*30.67	*31.34	*32.35
70–79 years	45	*27.72	2.85	†	*24.23	*24.82	*25.58	*27.70	*29.16	*30.04	*31.16	†
80 years and over	6	*27.85	5.04	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	724	28.31	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	21.60	2.78	17.25	18.34	18.91	19.81	21.27	23.16	24.33	25.22	26.57
12–15 years	179	28.28	3.29	22.56	24.28	24.72	26.04	27.96	30.39	31.42	33.04	34.18
16–19 years	175	29.95	2.61	25.87	26.56	27.01	27.80	30.08	31.51	32.27	33.03	33.94
20–29 years	240	30.31	3.09	25.41	26.57	27.12	28.12	30.19	32.25	33.45	34.46	35.41
30–39 years	265	30.31	2.81	25.59	26.75	27.39	28.36	30.31	32.11	33.27	33.95	35.05
40–49 years	354	30.49	2.81	26.24	27.23	27.75	28.49	30.30	32.12	33.33	34.18	35.64
50–59 years	290	29.99	2.74	25.51	26.51	27.09	27.91	30.07	31.91	32.96	33.57	34.36
60–69 years	261	29.97	2.92	25.13	26.09	26.87	28.27	29.95	31.66	32.86	33.60	34.64
70–79 years	214	30.05	3.08	25.51	26.30	26.79	27.67	29.76	31.77	32.95	34.55	35.82
80 years and over	123	29.62	3.06	25.30	26.20	26.71	27.54	29.36	31.45	32.42	33.51	34.95
20 years and over, age adjusted	1,747	30.21	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	22.02	3.12	17.56	17.88	18.37	19.89	21.69	24.19	25.32	25.92	27.79
12–15 years	226	27.71	2.95	22.83	23.81	24.71	25.78	27.63	29.41	30.55	31.45	33.18
16–19 years	203	28.92	2.81	24.06	25.50	26.02	26.90	28.76	30.91	31.90	32.28	33.20
20–29 years	130	29.42	2.89	24.23	25.51	26.94	27.63	29.31	31.30	32.39	33.13	34.56
30–39 years	147	29.49	3.04	25.48	26.00	26.21	27.16	28.80	31.28	32.95	33.72	34.54
40–49 years	165	30.27	3.12	25.71	26.29	27.03	28.33	29.89	32.14	33.75	34.39	†
50–59 years	142	29.32	2.90	25.28	25.67	26.36	27.31	29.22	31.00	32.67	33.31	34.07
60–69 years	149	29.66	2.72	24.77	25.94	26.53	27.96	29.69	31.37	32.40	32.97	34.32
70–79 years	54	*29.94	2.77	*25.67	*26.25	*26.47	*28.23	*30.09	*31.85	*33.09	*33.71	†
80 years and over	24	*29.65	3.00	†	†	*26.00	*27.00	*29.17	*31.92	*32.54	*32.68	†
20 years and over, age adjusted	811	29.68	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 51. Lumbar spine vertebrae 3 and 4 (L3, L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	715	23.59	2.92	18.94	19.94	20.56	21.52	23.55	25.30	26.62	27.67	28.81
12–15 years	788	30.50	4.73	23.08	24.19	25.18	26.59	30.41	33.96	35.41	36.63	38.59
16–19 years	776	35.89	3.79	29.53	31.08	31.80	33.28	35.83	38.41	39.92	40.54	42.19
20–29 years	715	36.18	3.45	30.65	31.75	32.43	33.62	36.11	38.51	39.80	40.53	41.96
30–39 years	730	36.07	3.47	30.32	31.48	32.59	33.74	35.83	38.53	39.96	40.68	41.52
40–49 years	699	36.64	3.40	31.20	31.94	32.98	34.39	36.66	38.90	40.16	40.76	41.94
50–59 years	620	36.78	3.69	30.92	32.26	32.98	34.31	36.83	39.27	40.49	41.30	42.74
60–69 years	573	36.88	3.48	31.29	32.21	33.25	34.60	36.74	39.24	40.63	41.25	42.68
70–79 years	377	37.08	3.67	31.24	31.96	33.16	34.58	37.22	39.35	40.71	41.66	42.99
80 years and over	183	37.37	3.60	31.18	32.86	33.52	34.71	37.21	39.82	41.44	42.46	43.11
20 years and over, age adjusted	3,897	36.55	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	22.78	2.78	18.54	19.11	19.90	20.69	22.60	24.59	25.64	26.16	27.69
12–15 years	234	30.23	4.52	22.61	24.45	25.70	27.12	29.81	33.17	35.31	36.53	37.68
16–19 years	217	33.95	3.45	28.84	29.59	30.36	31.44	33.80	36.14	37.25	38.19	39.90
20–29 years	197	34.25	2.98	29.63	30.29	30.99	32.10	33.97	36.23	37.42	38.16	39.62
30–39 years	153	34.58	3.24	29.28	30.35	30.86	32.15	34.50	36.37	37.91	38.55	39.98
40–49 years	150	34.52	3.45	28.87	30.51	31.10	31.88	34.44	36.64	37.91	38.61	40.42
50–59 years	103	34.65	2.92	29.33	31.05	31.70	32.47	34.57	36.71	37.37	38.63	39.84
60–69 years	102	*35.21	3.42	*29.21	*30.53	*31.28	*32.77	*35.25	*37.75	*38.91	*39.52	*40.01
70–79 years	38	*34.15	3.39	†	†	*29.71	*31.21	*34.13	*35.82	*38.21	*38.93	†
80 years and over	12	*35.58	3.34	†	†	†	*33.30	*34.41	*36.58	†	†	†
20 years and over, age adjusted	755	34.59	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	208	23.84	2.90	19.11	20.44	20.77	21.68	23.91	25.37	26.71	27.91	29.11
12–15 years	220	30.59	4.70	23.08	24.20	25.19	26.58	30.64	34.38	35.41	36.45	38.59
16–19 years	226	36.44	3.79	30.20	31.32	32.31	33.99	36.61	39.09	40.40	41.26	42.53
20–29 years	285	36.74	3.24	31.46	32.38	33.09	34.26	36.98	38.98	39.95	40.63	42.20
30–39 years	333	36.74	3.37	30.95	32.73	33.42	34.45	36.39	39.34	40.51	40.93	41.91
40–49 years	316	37.27	3.19	31.65	33.24	34.09	35.34	37.23	39.21	40.51	41.22	42.08
50–59 years	318	37.00	3.71	30.90	32.43	33.14	34.48	37.03	39.50	40.60	41.38	43.03
60–69 years	252	37.32	3.21	31.96	32.91	33.89	35.17	37.63	39.44	40.70	41.22	42.93
70–79 years	248	37.34	3.63	31.46	32.17	33.46	34.89	37.40	39.63	41.03	41.94	43.09
80 years and over	145	37.61	3.57	31.23	33.28	33.98	34.84	37.39	40.02	41.52	42.55	43.12
20 years and over, age adjusted	1,897	37.04	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	23.43	2.60	19.27	20.05	20.84	21.85	23.26	25.06	26.54	27.22	28.07
12–15 years	232	30.33	4.69	23.64	24.38	25.14	26.41	30.01	33.13	35.03	36.30	39.24
16–19 years	256	35.17	3.63	29.28	30.92	31.55	32.63	34.87	37.83	39.50	39.95	41.62
20–29 years	158	35.73	3.68	29.49	31.52	32.57	33.15	35.60	38.13	39.73	40.49	42.49
30–39 years	144	35.31	3.48	29.45	30.83	31.67	33.04	35.20	37.68	39.08	40.21	41.20
40–49 years	147	36.05	3.27	29.81	32.45	33.05	33.89	35.68	38.34	38.94	39.80	40.85
50–59 years	115	37.06	3.75	31.78	32.34	33.03	34.34	36.64	39.61	41.46	42.29	43.83
60–69 years	150	36.47	3.63	30.95	32.00	32.55	33.91	36.01	38.77	40.07	41.55	43.12
70–79 years	65	*36.89	3.65	*31.59	*32.16	*33.28	*33.72	*36.87	*39.51	*40.77	*41.20	*41.85
80 years and over	14	*36.97	3.11	†	†	†	*34.64	*36.11	*37.83	†	†	†
20 years and over, age adjusted	793	36.14	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	742	22.44	3.17	17.79	18.61	19.31	20.22	22.15	24.33	25.77	26.63	28.36
12–15 years	708	29.32	3.39	23.65	24.96	25.92	27.14	29.07	31.49	32.54	33.56	35.66
16–19 years	633	31.02	2.87	26.72	27.53	27.90	28.83	30.93	32.82	33.91	34.76	36.14
20–29 years	597	31.30	3.24	26.47	27.37	27.82	29.02	31.15	33.32	34.58	35.73	37.15
30–39 years	658	31.28	3.09	26.41	27.39	28.12	29.11	31.18	33.44	34.50	35.22	36.43
40–49 years	763	31.64	3.12	27.05	27.81	28.46	29.56	31.46	33.55	34.87	35.80	37.23
50–59 years	619	31.18	2.93	26.54	27.51	28.01	28.95	31.13	33.05	34.67	35.14	36.07
60–69 years	620	31.08	2.98	26.02	27.15	27.85	28.99	31.12	32.87	33.93	34.67	35.68
70–79 years	349	31.06	3.16	26.40	27.22	28.05	28.74	30.86	32.91	34.39	35.46	36.71
80 years and over	174	30.64	3.31	25.20	26.59	27.29	28.41	30.72	32.83	33.84	34.61	36.25
20 years and over, age adjusted	3,780	31.28	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 51. Lumbar spine vertebrae 3 and 4 (L3, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	21.68	3.04	17.36	18.05	18.47	19.22	21.47	23.73	24.78	25.39	26.61
12–15 years	228	28.36	2.78	23.58	24.61	25.50	26.57	28.37	30.46	31.27	31.84	32.52
16–19 years	178	29.61	2.48	25.80	26.47	27.17	28.06	29.59	30.68	31.91	32.86	34.27
20–29 years	145	29.66	2.82	25.53	26.46	26.99	27.44	29.64	31.51	32.69	33.15	34.03
30–39 years	149	29.88	2.96	25.04	25.48	26.57	27.78	30.12	31.85	32.85	33.30	33.74
40–49 years	137	30.22	2.65	26.32	27.00	27.46	28.21	30.02	31.90	33.20	33.90	34.74
50–59 years	108	*29.31	2.51	*25.56	*25.82	*26.25	*27.47	*29.35	*30.71	*31.89	*32.78	*33.49
60–69 years	141	29.00	2.66	24.64	25.57	26.13	27.17	29.04	30.79	31.50	32.57	33.29
70–79 years	48	*29.15	2.58	†	*25.70	*26.98	*27.55	*29.02	*30.27	*31.54	*32.09	†
80 years and over	8	*28.34	3.73	†	†	†	†	*27.42	†	†	†	†
20 years and over, age adjusted	736	29.60	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	22.51	3.02	17.78	19.23	19.59	20.48	22.35	24.25	25.43	26.53	27.78
12–15 years	178	29.66	3.48	23.73	25.00	25.99	27.44	29.40	31.76	32.73	34.70	36.08
16–19 years	173	31.51	2.77	27.41	27.78	28.24	29.53	31.40	33.41	34.50	35.08	36.45
20–29 years	239	31.83	3.19	26.99	27.70	28.69	29.54	31.52	33.99	34.91	36.30	37.43
30–39 years	268	31.76	2.98	26.95	27.78	28.67	29.61	31.57	33.83	34.76	35.62	36.87
40–49 years	361	31.91	2.98	27.46	28.20	28.98	29.90	31.70	33.62	34.92	35.80	37.52
50–59 years	291	31.53	2.89	26.73	27.70	28.30	29.27	31.49	33.47	34.81	35.33	36.25
60–69 years	262	31.32	2.91	26.32	27.44	28.33	29.44	31.26	33.02	34.21	34.85	36.19
70–79 years	216	31.24	3.15	26.51	27.44	28.18	28.81	31.00	33.19	34.75	35.56	36.79
80 years and over	130	30.70	3.27	25.32	26.79	27.39	28.67	30.73	32.75	33.71	34.62	36.34
20 years and over, age adjusted	1,767	31.63	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	23.06	3.33	17.98	18.74	19.27	20.74	22.64	25.36	26.48	27.52	29.12
12–15 years	226	29.25	3.20	24.18	25.20	26.12	27.04	29.14	31.27	32.35	33.23	†
16–19 years	203	30.55	2.98	25.66	27.07	27.46	28.50	30.43	32.96	33.82	34.30	35.36
20–29 years	128	31.12	3.14	25.83	27.35	27.94	28.99	31.15	32.88	34.69	35.04	†
30–39 years	147	31.11	3.22	26.63	27.39	28.04	28.56	30.43	33.00	34.77	35.74	36.51
40–49 years	168	31.96	3.33	26.88	27.38	28.61	29.61	31.87	34.02	35.88	36.45	†
50–59 years	140	30.79	2.93	26.76	27.48	27.84	28.55	30.45	32.46	33.87	34.81	35.79
60–69 years	145	31.23	2.92	26.21	27.26	28.19	29.29	31.33	33.04	34.05	34.64	35.59
70–79 years	55	*31.40	2.83	†	*28.00	*28.66	*29.35	*30.92	*33.12	*34.19	*35.06	†
80 years and over	23	*31.32	3.44	†	†	*27.12	*28.19	*30.82	*33.92	*34.67	†	†
20 years and over, age adjusted	806	31.29	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 52. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	713	30.05	3.66	24.46	25.53	26.23	27.35	29.82	32.20	33.59	34.70	36.56
12–15 years	784	39.23	6.22	29.57	31.10	32.32	34.00	39.14	43.69	45.59	47.36	50.04
16–19 years	774	46.68	4.93	38.59	40.43	41.55	43.37	46.69	49.99	51.53	52.90	54.87
20–29 years	713	47.37	4.42	40.02	41.59	42.67	44.16	47.21	50.24	52.07	53.03	54.52
30–39 years	727	47.79	4.61	40.07	41.94	42.67	44.64	47.82	50.87	53.11	54.05	55.32
40–49 years	684	48.67	4.48	41.12	43.01	43.96	45.72	48.62	51.44	53.34	54.35	55.93
50–59 years	601	48.98	4.96	41.33	42.80	43.72	45.31	48.68	52.39	54.21	55.42	57.64
60–69 years	581	49.06	4.79	41.58	43.06	43.93	45.71	48.89	52.41	53.90	54.92	56.62
70–79 years	356	50.03	4.82	42.51	43.88	44.97	46.77	50.20	53.06	55.15	56.44	57.73
80 years and over	186	50.27	4.58	43.33	44.56	45.12	46.89	49.64	53.30	55.08	56.93	58.10
20 years and over, age adjusted	3,848	48.52	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	29.39	3.42	24.28	25.20	25.64	27.20	29.13	31.49	32.64	33.91	35.16
12–15 years	231	39.01	5.97	28.55	30.72	33.15	34.94	38.54	43.30	45.10	46.36	48.62
16–19 years	216	44.47	4.71	38.03	38.53	39.19	40.96	43.92	47.49	48.93	50.30	51.91
20–29 years	193	45.05	3.92	38.76	39.79	40.78	42.14	44.85	47.62	49.49	50.25	51.58
30–39 years	152	45.93	4.23	39.31	40.22	41.13	42.99	45.74	48.93	50.16	51.37	53.45
40–49 years	145	45.97	4.38	38.66	40.74	41.61	42.97	45.92	48.43	50.24	51.72	53.49
50–59 years	100	46.40	3.81	39.11	41.57	42.54	43.82	46.52	48.39	49.63	51.05	53.27
60–69 years	103	*47.37	4.31	*40.06	*41.19	*42.49	*44.36	*47.36	*49.82	*51.63	*52.85	*54.83
70–79 years	31	*45.33	4.47	†	*39.57	*40.02	*41.55	*45.66	*47.73	*50.58	*51.51	†
80 years and over	13	*47.83	4.72	†	†	†	*44.35	*46.62	†	†	†	†
20 years and over, age adjusted	737	46.04	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	30.36	3.69	24.46	25.73	26.81	27.52	30.24	32.40	33.82	35.07	37.41
12–15 years	221	39.48	6.20	29.62	31.29	32.53	33.85	39.48	44.04	45.96	47.39	50.05
16–19 years	225	47.36	4.91	38.79	40.67	42.29	44.00	47.68	50.49	51.92	53.18	55.75
20–29 years	282	48.11	4.16	41.06	42.81	43.67	45.67	48.00	50.78	52.43	53.65	54.56
30–39 years	337	48.73	4.41	42.03	42.72	43.85	45.71	49.04	51.91	53.41	54.30	55.67
40–49 years	310	49.52	4.27	42.23	43.89	45.38	46.97	49.45	52.42	53.93	55.05	56.19
50–59 years	313	49.37	4.91	41.85	43.37	44.30	45.62	49.11	52.64	54.67	55.65	57.76
60–69 years	249	49.74	4.50	42.69	43.64	44.90	46.30	49.80	52.80	54.25	55.07	56.64
70–79 years	228	50.51	4.76	43.11	44.30	45.56	47.34	50.65	53.41	55.59	56.67	57.78
80 years and over	143	50.61	4.44	43.96	44.72	46.02	47.61	49.97	53.48	55.36	57.12	58.14
20 years and over, age adjusted	1,862	49.22	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	198	29.61	3.34	24.42	25.64	26.53	27.35	29.45	31.76	33.30	34.06	35.43
12–15 years	231	38.58	5.98	29.96	31.10	32.04	33.50	38.16	42.38	44.98	45.99	49.34
16–19 years	256	45.58	4.70	37.46	39.84	41.01	42.77	45.11	48.71	51.02	52.03	53.95
20–29 years	162	46.62	4.71	38.59	40.54	41.70	43.27	46.55	49.61	51.29	52.88	55.23
30–39 years	141	46.45	4.65	38.68	40.68	41.52	43.06	46.24	49.29	50.93	53.01	54.58
40–49 years	144	47.59	4.11	40.26	42.94	43.14	44.84	47.54	50.54	51.19	51.81	54.59
50–59 years	114	48.73	5.40	41.18	42.11	43.27	44.84	48.10	52.03	53.84	55.61	58.39
60–69 years	159	48.18	4.77	41.15	41.57	43.04	44.69	47.89	51.15	53.21	54.93	56.20
70–79 years	68	*48.60	4.49	*42.51	*43.67	*43.88	*44.62	*48.01	*51.40	*54.29	*55.06	*56.16
80 years and over	18	*49.52	5.03	†	†	†	*45.22	*48.83	*51.30	†	†	†
20 years and over, age adjusted	806	47.58	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	744	28.62	3.85	23.18	24.24	24.81	25.87	28.22	30.61	32.79	33.93	35.87
12–15 years	714	37.35	4.37	30.40	31.59	32.87	34.41	37.27	39.93	41.70	42.83	45.52
16–19 years	661	39.33	3.75	33.50	34.86	35.54	36.68	39.30	41.53	42.92	44.12	45.47
20–29 years	623	39.96	4.09	33.56	34.82	35.59	36.88	39.89	42.84	44.21	45.45	46.72
30–39 years	647	40.04	3.90	33.80	34.95	35.98	37.24	39.97	42.65	44.21	45.08	46.38
40–49 years	771	40.72	3.97	34.32	35.54	36.63	38.08	40.51	43.21	44.79	45.95	47.53
50–59 years	610	40.01	3.72	34.12	35.32	35.90	37.32	39.76	42.81	44.12	44.77	46.12
60–69 years	618	40.00	3.78	33.64	34.75	35.77	37.43	39.96	42.42	43.77	44.67	46.36
70–79 years	362	40.17	3.84	34.31	35.33	36.21	37.66	39.81	42.27	43.89	45.07	47.50
80 years and over	179	39.92	4.23	33.40	34.79	35.67	37.18	39.66	42.48	44.35	45.50	47.27
20 years and over, age adjusted	3,810	40.17	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 52. Lumbar spine vertebrae 1, 2, and 3 (L1, L2, L3) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	237	27.75	3.74	22.70	23.34	24.19	24.86	27.34	29.89	31.47	32.91	34.12
12–15 years	231	36.03	3.50	30.19	31.44	32.23	33.86	36.16	38.30	39.53	40.32	41.31
16–19 years	184	37.74	3.27	33.09	33.85	34.24	35.29	37.32	39.71	40.99	41.62	†
20–29 years	148	38.14	3.56	32.50	33.84	34.35	35.56	37.78	40.72	42.10	42.84	43.56
30–39 years	149	38.41	3.78	31.84	32.94	34.38	35.92	38.30	41.07	42.58	43.53	44.13
40–49 years	140	39.27	3.34	33.86	35.32	35.95	36.77	38.93	41.66	42.95	44.01	†
50–59 years	103	*38.19	3.47	*32.11	*33.81	*34.53	*35.75	*37.79	*40.81	*41.64	*43.04	*44.10
60–69 years	132	*37.63	3.41	*32.50	*33.29	*34.00	*34.99	*37.21	*40.33	*41.02	*41.82	†
70–79 years	44	*37.61	3.82	†	*32.60	*33.38	*35.16	*37.29	*39.87	*41.58	*42.22	†
80 years and over	8	*38.18	5.66	†	†	†	†	*36.53	†	†	†	†
20 years and over, age adjusted	724	38.36	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	200	28.87	3.73	23.48	24.50	25.21	26.00	28.58	30.47	32.81	34.00	35.61
12–15 years	181	37.92	4.56	30.59	31.92	32.84	34.89	37.76	40.55	42.15	43.52	46.71
16–19 years	188	39.97	3.62	34.45	35.57	36.08	37.06	40.04	42.06	43.44	44.30	46.24
20–29 years	256	40.73	3.99	34.42	35.54	36.31	37.67	40.56	43.35	45.14	46.02	47.04
30–39 years	263	40.77	3.78	34.23	35.99	37.04	37.96	40.78	43.28	44.56	45.82	46.85
40–49 years	358	41.14	3.83	34.88	36.15	37.27	38.59	40.91	43.56	45.19	46.02	47.99
50–59 years	289	40.49	3.65	34.69	35.57	36.40	37.79	40.38	43.27	44.42	44.95	46.22
60–69 years	262	40.35	3.74	34.08	35.33	36.23	38.06	40.22	42.64	44.10	44.99	46.70
70–79 years	222	40.55	3.77	34.73	35.96	36.71	38.05	40.24	42.43	44.46	45.28	47.86
80 years and over	135	39.95	4.23	33.52	34.89	35.92	37.30	39.64	42.41	44.24	45.56	47.40
20 years and over, age adjusted	1,785	40.70	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	29.02	4.06	23.20	23.77	24.55	26.21	28.50	31.65	33.24	34.85	36.61
12–15 years	226	36.89	4.00	30.25	31.62	32.89	33.75	36.90	39.69	40.70	42.11	43.07
16–19 years	207	38.47	4.03	31.72	33.49	34.55	35.67	38.07	41.00	43.14	43.84	44.94
20–29 years	132	39.09	3.91	32.47	33.81	35.21	36.19	39.01	41.94	43.16	43.92	45.56
30–39 years	143	39.32	4.07	33.88	34.95	35.31	36.06	38.58	42.06	43.69	44.33	45.97
40–49 years	170	40.41	4.20	33.57	35.19	35.88	37.67	40.20	42.73	44.73	45.94	†
50–59 years	139	39.12	3.90	33.34	34.42	34.82	36.28	38.83	41.29	43.43	44.69	†
60–69 years	151	39.63	3.56	33.53	34.65	35.63	37.04	39.70	41.76	43.03	44.00	45.96
70–79 years	68	*39.30	3.50	†	*34.52	*35.47	*37.06	*39.02	*41.26	*43.12	*43.81	*44.49
80 years and over	26	*39.93	4.12	†	†	*35.55	*36.93	*39.56	*42.50	*43.91	*44.52	†
20 years and over, age adjusted	829	39.54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 53. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	31.82	3.87	26.09	26.98	27.69	29.02	31.66	34.26	35.77	36.74	39.04
12–15 years	784	41.00	6.31	31.03	33.04	33.97	35.79	40.88	45.85	47.80	48.96	51.54
16–19 years	773	48.58	5.11	40.20	41.87	43.14	45.11	48.47	52.03	53.83	54.98	57.43
20–29 years	707	49.18	4.59	41.75	43.26	44.25	45.93	49.17	52.36	53.87	54.97	56.56
30–39 years	719	49.46	4.65	41.66	43.52	44.51	46.21	49.38	52.69	54.80	55.64	56.75
40–49 years	670	50.39	4.63	42.78	44.50	45.34	47.32	50.38	53.41	55.19	56.20	57.90
50–59 years	591	50.83	5.01	43.05	44.71	45.79	47.17	50.77	53.98	55.94	57.08	59.26
60–69 years	537	50.89	4.74	42.99	44.87	46.24	47.45	50.96	54.29	56.03	57.04	58.37
70–79 years	344	51.64	4.90	43.06	45.27	46.56	48.33	51.76	54.76	56.83	58.26	59.50
80 years and over	165	52.15	4.55	44.75	46.16	47.01	48.80	51.66	55.52	57.39	58.64	59.94
20 years and over, age adjusted	3,733	50.27	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	30.92	3.56	25.22	26.54	27.42	28.42	30.56	33.14	34.43	35.58	36.86
12–15 years	232	40.63	6.07	30.22	32.99	34.48	36.60	39.93	44.89	46.86	48.46	50.69
16–19 years	216	46.02	4.79	39.03	40.11	40.67	42.15	45.49	48.93	51.02	52.13	53.57
20–29 years	192	46.52	3.97	40.30	41.73	42.26	43.69	46.29	48.75	51.16	52.06	53.60
30–39 years	149	47.54	4.40	40.65	41.82	42.80	44.26	47.35	50.71	52.34	53.22	54.79
40–49 years	140	47.64	4.48	40.34	41.83	43.33	44.49	47.40	50.29	51.43	53.34	55.51
50–59 years	99	47.81	3.80	40.11	43.42	44.52	45.30	47.65	50.22	51.60	52.52	54.78
60–69 years	94	*49.01	4.54	*41.53	*42.28	*43.39	*45.91	*49.08	*51.51	*53.90	*55.10	*57.07
70–79 years	34	*47.17	4.61	†	†	*41.60	*44.06	*46.29	*49.20	*53.04	*53.56	†
80 years and over	12	*50.01	4.96	†	†	†	†	*48.55	†	†	†	†
20 years and over, age adjusted	720	47.65	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	32.20	3.90	26.29	27.06	28.22	29.51	31.94	34.55	35.83	37.30	39.65
12–15 years	220	41.24	6.30	31.04	33.14	34.30	35.73	41.20	46.11	47.88	49.18	51.46
16–19 years	225	49.32	5.11	40.56	42.47	44.19	45.96	49.66	52.79	54.36	55.67	58.03
20–29 years	282	50.02	4.25	43.28	44.59	45.32	47.05	50.24	52.88	54.40	55.34	56.76
30–39 years	332	50.40	4.47	43.21	44.96	45.61	47.21	50.48	53.50	55.23	55.97	57.33
40–49 years	304	51.27	4.44	43.85	45.09	46.82	48.74	51.21	54.07	55.83	56.66	58.26
50–59 years	309	51.21	5.02	43.10	44.94	46.06	47.46	51.17	54.44	56.23	57.54	59.47
60–69 years	235	51.52	4.33	44.60	45.89	46.84	48.19	51.28	54.47	56.22	57.15	58.31
70–79 years	220	52.10	4.82	44.56	45.61	46.93	49.17	52.04	55.36	57.06	58.37	59.82
80 years and over	129	52.49	4.44	45.07	46.28	47.74	49.58	52.17	55.85	57.54	58.80	59.90
20 years and over, age adjusted	1,811	51.00	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	31.31	3.47	25.77	26.99	27.71	29.06	31.08	33.60	34.97	35.92	37.56
12–15 years	231	40.53	6.19	31.89	32.89	33.38	35.50	40.25	44.09	46.99	48.71	52.09
16–19 years	255	47.53	4.86	39.24	41.88	42.42	44.35	47.21	50.87	53.06	54.20	56.37
20–29 years	157	48.32	4.87	40.78	42.40	43.19	45.28	47.91	51.42	53.11	55.48	56.87
30–39 years	141	48.26	4.63	40.64	42.17	43.59	45.06	48.25	51.43	52.81	54.90	55.88
40–49 years	141	49.07	4.10	41.82	44.09	44.93	46.21	48.88	51.99	52.87	53.64	54.83
50–59 years	110	50.07	4.98	42.09	43.94	45.23	46.61	49.40	53.34	54.99	56.27	59.40
60–69 years	141	50.30	5.01	43.05	44.23	44.64	46.89	49.73	53.51	55.42	57.33	59.58
70–79 years	63	*50.70	4.67	*44.40	*45.26	*45.75	*46.96	*49.94	*53.49	*55.51	*57.38	†
80 years and over	14	*50.90	4.11	†	†	†	*47.99	*49.86	*52.62	†	†	†
20 years and over, age adjusted	767	49.26	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	30.23	4.01	24.07	25.43	26.25	27.51	29.82	32.57	34.34	35.43	37.91
12–15 years	708	39.16	4.49	31.90	33.27	34.66	36.33	38.87	42.07	43.46	44.85	47.76
16–19 years	634	41.38	3.84	35.55	36.69	37.34	38.53	41.51	43.94	45.05	46.07	47.41
20–29 years	597	41.83	4.27	35.39	36.38	37.52	38.64	41.65	44.60	46.35	47.51	49.47
30–39 years	642	41.95	4.07	35.33	36.84	37.82	39.11	41.80	44.81	46.22	47.18	48.84
40–49 years	746	42.47	4.11	35.97	37.49	38.31	39.62	42.21	45.11	46.81	47.47	49.68
50–59 years	594	41.82	3.88	35.80	36.81	37.70	39.06	41.77	44.68	46.28	46.81	47.86
60–69 years	595	41.90	3.97	35.18	36.53	37.42	39.40	41.83	44.61	45.77	46.74	47.93
70–79 years	324	42.01	4.14	35.69	36.87	37.98	39.08	41.79	44.47	45.88	47.31	50.01
80 years and over	157	41.75	4.26	35.10	36.53	37.68	38.91	41.09	44.40	46.01	47.42	†
20 years and over, age adjusted	3,655	42.01	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 53. Lumbar spine vertebrae 1, 2, and 4 (L1, L2, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	29.26	3.88	23.56	24.64	25.33	26.29	28.71	31.81	32.91	34.50	35.40
12–15 years	228	37.68	3.55	31.54	33.32	34.24	35.41	37.64	40.10	41.25	41.71	43.56
16–19 years	178	39.47	3.34	34.42	35.26	36.28	37.19	39.25	41.28	42.19	44.25	46.47
20–29 years	145	39.82	3.71	34.34	35.35	35.91	37.16	39.30	42.31	43.77	44.29	†
30–39 years	149	40.10	3.85	33.29	34.70	35.66	37.34	40.27	42.64	44.26	45.10	45.64
40–49 years	137	40.75	3.59	35.74	36.58	37.08	37.88	40.30	43.48	44.42	45.48	†
50–59 years	99	*39.53	3.50	*34.33	*35.24	*35.69	*36.79	*39.55	*41.74	*42.91	*44.06	*46.72
60–69 years	126	*39.39	3.55	*33.96	*35.08	*35.53	*36.83	*39.32	*41.79	*42.91	*44.28	†
70–79 years	41	*39.03	3.86	†	*34.48	*35.49	*35.95	*39.09	*41.24	*41.57	*43.42	†
80 years and over	6	*39.71	7.66	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	703	39.92	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	30.43	3.85	24.11	26.13	26.61	27.83	29.96	32.61	34.35	35.51	37.47
12–15 years	179	39.75	4.65	31.91	33.63	34.67	36.63	39.45	42.60	44.56	46.01	48.56
16–19 years	174	42.12	3.66	36.70	37.32	38.05	39.41	42.31	44.27	45.56	46.23	47.56
20–29 years	237	42.63	4.22	35.76	37.22	38.06	39.50	42.60	45.09	46.99	48.07	49.95
30–39 years	258	42.73	3.92	36.23	37.73	38.44	40.05	42.74	45.30	46.77	47.69	49.55
40–49 years	349	42.93	3.94	36.93	38.25	38.75	40.24	42.76	45.30	46.88	47.80	50.27
50–59 years	284	42.31	3.79	36.01	37.16	38.31	39.52	42.21	45.19	46.36	47.14	48.07
60–69 years	254	42.27	3.95	35.43	37.08	38.08	39.97	42.14	44.83	46.08	46.92	48.27
70–79 years	205	42.33	4.13	36.11	37.35	38.21	39.39	41.89	44.65	46.01	47.75	50.31
80 years and over	119	41.79	4.21	35.10	37.24	37.90	38.95	41.06	44.16	46.04	47.47	48.87
20 years and over, age adjusted	1,706	42.57	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	30.75	4.24	24.63	25.16	26.00	27.89	30.19	33.75	35.09	36.60	38.58
12–15 years	225	38.75	4.10	31.76	33.52	34.38	35.87	38.65	41.02	42.73	44.12	45.99
16–19 years	203	40.50	3.99	33.43	36.00	36.41	37.64	40.06	43.22	44.80	45.47	46.22
20–29 years	129	41.05	3.98	33.95	35.81	37.44	38.45	40.80	43.73	45.20	46.12	47.80
30–39 years	143	41.18	4.24	35.53	36.10	36.80	38.10	40.52	43.90	45.71	46.89	48.47
40–49 years	164	42.32	4.34	35.48	36.86	38.07	39.57	41.87	44.85	46.88	47.99	†
50–59 years	134	41.09	4.06	35.16	36.27	37.15	37.81	40.91	43.05	45.77	46.80	†
60–69 years	145	41.54	3.69	35.02	36.00	37.48	39.33	41.57	43.90	45.12	46.42	47.71
70–79 years	53	*41.74	3.83	*35.10	*36.04	*38.00	*38.60	*41.88	*44.23	*45.96	*46.86	†
80 years and over	23	*41.70	4.08	†	†	*36.22	*38.95	*41.79	*44.78	*45.11	†	†
20 years and over, age adjusted	791	41.50	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 54. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	712	32.82	4.02	26.70	27.62	28.63	29.95	32.78	35.25	36.86	38.30	39.76
12–15 years	785	42.40	6.57	32.23	33.88	34.94	37.00	42.16	47.26	49.09	51.01	53.40
16–19 years	774	50.21	5.25	41.45	43.28	44.82	46.57	50.01	53.81	55.61	56.93	58.92
20–29 years	706	50.75	4.76	43.03	44.61	45.74	47.18	50.76	53.94	55.59	56.74	58.75
30–39 years	716	50.84	4.82	43.24	44.40	45.65	47.48	50.63	54.29	56.23	57.16	58.53
40–49 years	670	51.76	4.68	43.85	45.58	46.40	48.74	51.83	54.99	56.58	57.57	59.08
50–59 years	585	52.01	5.15	44.03	45.75	46.70	48.21	51.75	55.55	57.22	58.45	60.09
60–69 years	536	52.10	4.78	44.33	45.93	47.31	48.89	52.08	55.49	57.09	58.42	59.86
70–79 years	339	52.61	4.91	44.54	46.26	47.45	49.40	52.63	55.85	57.21	59.04	60.49
80 years and over	166	53.11	4.83	45.30	47.13	47.99	49.73	52.49	56.55	58.67	60.01	61.36
20 years and over, age adjusted	3,718	51.59	...	...	...	...	...	...	...	...	...	...
Mexican American:												
8–11 years	210	31.87	3.73	26.08	27.16	28.13	29.41	31.65	34.39	35.38	36.81	38.08
12–15 years	232	42.06	6.28	31.46	33.59	35.80	38.02	41.45	46.52	49.03	50.34	52.03
16–19 years	217	47.49	4.85	40.55	41.45	42.19	43.34	47.12	50.37	52.46	53.72	55.20
20–29 years	192	48.04	4.10	41.58	42.58	43.32	45.27	47.84	50.63	52.77	53.90	55.33
30–39 years	149	48.71	4.53	41.58	42.90	43.72	45.23	48.66	51.54	53.75	54.18	56.44
40–49 years	143	48.83	4.65	41.25	43.07	44.23	45.56	48.90	51.52	53.34	54.88	56.37
50–59 years	98	48.95	3.92	41.26	44.38	45.28	46.32	48.71	51.32	52.72	54.45	55.89
60–69 years	96	*49.90	4.70	*42.48	*42.84	*44.08	*46.43	*50.65	*52.47	*54.33	*55.82	*57.69
70–79 years	33	*48.16	4.44	†	†	*42.36	*44.82	*48.08	*50.13	*53.18	*54.98	†
80 years and over	12	*50.61	4.70	†	†	†	†	*48.68	*52.01	†	†	†
20 years and over, age adjusted	723	48.82	...	...	...	...	...	...	...	...	...	...
Non-Hispanic white:												
8–11 years	206	33.19	4.03	26.92	28.02	29.15	30.52	33.11	35.34	36.95	38.77	40.64
12–15 years	220	42.61	6.55	32.23	33.94	34.95	36.78	42.51	47.59	49.19	51.00	53.62
16–19 years	225	50.98	5.25	41.86	44.20	45.44	47.84	51.35	54.41	56.20	57.49	59.84
20–29 years	281	51.57	4.46	44.22	45.95	46.57	48.42	51.63	54.64	55.94	57.21	59.26
30–39 years	330	51.80	4.64	44.11	45.85	47.01	48.74	51.75	55.21	56.74	57.67	58.84
40–49 years	302	52.66	4.44	45.09	46.26	48.17	50.11	52.64	55.68	57.21	58.17	59.31
50–59 years	305	52.40	5.17	44.23	45.85	46.92	48.55	52.38	56.13	57.56	58.69	60.04
60–69 years	231	52.77	4.34	45.56	47.26	48.28	49.46	52.93	55.76	57.29	58.58	59.74
70–79 years	217	53.04	4.83	44.82	47.24	47.82	49.92	53.37	56.22	57.73	59.43	60.68
80 years and over	131	53.44	4.75	45.35	47.28	48.24	50.04	52.82	56.80	59.02	60.03	61.37
20 years and over, age adjusted	1,797	52.32	...	...	...	...	...	...	...	...	...	...
Non-Hispanic black:												
8–11 years	197	32.37	3.59	26.43	28.14	28.69	30.13	32.15	34.63	36.25	37.38	38.53
12–15 years	232	41.99	6.45	32.67	33.91	34.75	36.56	41.66	45.74	48.66	50.19	53.40
16–19 years	255	49.16	5.01	40.79	43.37	44.09	45.68	48.64	52.77	54.82	55.84	58.08
20–29 years	158	50.01	5.07	41.54	43.79	45.28	46.52	49.48	53.06	55.34	57.23	59.07
30–39 years	140	49.68	4.85	41.53	43.42	44.70	46.57	49.63	52.74	54.56	55.98	58.11
40–49 years	140	50.79	4.25	43.34	45.67	46.20	48.02	50.57	53.54	54.71	55.29	56.81
50–59 years	108	51.72	5.20	43.99	45.07	46.57	48.02	51.07	55.59	57.51	58.70	60.75
60–69 years	140	51.39	4.98	44.41	45.12	46.02	47.97	50.80	54.43	56.57	58.34	60.63
70–79 years	64	*52.00	4.85	*44.94	*46.49	*47.07	*47.86	*51.65	*54.78	*57.52	*58.55	†
80 years and over	13	*52.08	4.53	†	†	†	*48.98	*50.78	*52.83	†	†	†
20 years and over, age adjusted	763	50.78	...	...	...	...	...	...	...	...	...	...
Female												
All race and ethnicity:												
8–11 years	741	31.18	4.22	25.02	26.17	26.94	28.30	30.82	33.65	35.49	36.73	39.22
12–15 years	707	40.57	4.65	32.98	34.42	35.73	37.53	40.25	43.45	44.94	46.39	49.51
16–19 years	631	42.94	3.95	37.20	38.14	38.74	40.08	42.68	45.52	46.96	48.08	49.24
20–29 years	592	43.34	4.39	36.67	37.80	38.60	40.17	43.18	46.18	47.85	49.25	51.08
30–39 years	644	43.44	4.20	36.83	38.22	39.11	40.39	43.20	46.19	47.68	48.94	50.68
40–49 years	750	43.90	4.25	37.47	38.57	39.71	41.04	43.62	46.39	48.22	49.55	51.50
50–59 years	592	43.31	3.95	37.19	38.37	39.08	40.42	43.18	45.96	47.89	48.69	49.77
60–69 years	590	43.25	3.96	36.63	37.86	38.79	40.61	43.39	45.86	47.15	48.07	49.35
70–79 years	325	43.28	4.26	36.47	38.16	39.21	40.27	42.85	45.79	47.51	49.17	51.06
80 years and over	161	43.00	4.34	36.51	37.49	38.86	39.95	42.94	45.93	47.34	48.40	50.20
20 years and over, age adjusted	3,654	43.45	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 54. Lumbar spine vertebrae 1, 3, and 4 (L1, L3, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	30.14	4.04	24.15	25.25	26.05	27.02	29.62	32.93	34.04	35.43	36.67
12–15 years	228	39.12	3.75	32.55	34.33	35.17	36.76	39.08	41.68	43.08	43.63	44.87
16–19 years	178	40.95	3.39	35.82	36.73	37.73	38.60	40.93	42.52	44.03	45.92	47.63
20–29 years	144	41.20	3.79	35.69	36.67	37.43	38.37	40.88	43.80	45.41	45.99	46.80
30–39 years	149	41.47	4.00	34.83	35.57	36.99	38.76	41.60	43.98	45.77	46.44	46.99
40–49 years	136	42.10	3.61	36.38	37.88	38.46	39.38	41.78	44.42	46.26	47.14	†
50–59 years	102	*40.80	3.45	*35.68	*36.45	*36.92	*38.35	*40.56	*42.80	*44.25	*45.43	*47.36
60–69 years	129	*40.50	3.64	*34.52	*35.82	*36.63	*37.83	*40.48	*43.02	*44.48	*45.06	*46.39
70–79 years	42	*40.42	3.61	†	*35.73	*36.96	*38.01	*40.27	*42.23	*43.85	*44.55	†
80 years and over	8	*39.69	5.97	†	†	†	†	*37.00	†	†	†	†
20 years and over, age adjusted	710	41.18	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	31.37	4.05	24.99	26.92	27.48	28.67	31.07	33.56	35.29	36.77	38.64
12–15 years	178	41.12	4.81	33.10	34.55	35.72	38.03	40.60	43.96	45.64	48.29	50.19
16–19 years	172	43.68	3.78	37.75	38.82	39.58	40.89	43.69	45.89	47.41	48.73	49.60
20–29 years	236	44.15	4.30	37.44	38.58	39.90	40.96	43.98	46.87	48.34	50.57	51.55
30–39 years	260	44.20	4.04	37.59	39.00	39.69	41.51	44.18	46.84	48.02	49.38	50.98
40–49 years	353	44.33	4.08	38.18	39.51	40.15	41.45	43.93	46.73	48.39	49.65	51.89
50–59 years	281	43.84	3.88	37.63	38.64	39.32	41.03	43.70	46.53	48.06	49.03	49.87
60–69 years	251	43.63	3.88	37.03	38.44	39.43	40.89	43.62	45.97	47.42	48.25	49.93
70–79 years	204	43.54	4.25	36.59	38.61	39.29	40.45	43.14	46.20	47.71	49.40	51.82
80 years and over	121	43.02	4.30	36.61	37.78	39.14	40.07	42.55	45.56	47.24	48.55	50.27
20 years and over, age adjusted	1,706	43.99	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	31.78	4.44	25.28	25.87	26.75	28.86	31.13	34.83	36.24	37.52	39.84
12–15 years	225	40.30	4.34	33.26	34.69	35.90	37.19	40.11	42.89	44.67	45.91	†
16–19 years	202	42.14	4.11	35.03	37.40	38.30	39.08	41.66	45.40	46.51	47.43	48.16
20–29 years	128	42.73	4.20	35.52	37.60	38.52	39.58	42.73	45.59	47.36	48.18	49.97
30–39 years	143	42.84	4.41	36.87	37.55	38.65	39.64	41.92	45.44	47.86	48.95	49.77
40–49 years	165	43.96	4.51	36.94	37.86	39.69	41.12	43.47	46.25	48.84	49.86	†
50–59 years	131	42.50	4.00	37.12	37.79	38.55	39.58	41.93	44.70	47.03	47.87	†
60–69 years	141	43.13	3.85	36.63	37.69	38.35	40.78	43.28	45.62	46.67	47.12	49.79
70–79 years	54	*43.23	3.78	*35.93	*37.69	*39.64	*40.93	*42.80	*45.94	*47.32	*48.35	†
80 years and over	22	*43.52	4.38	†	†	*38.12	*40.59	*43.22	*46.63	*47.47	†	†
20 years and over, age adjusted	784	43.10	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 55. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	714	33.50	4.05	27.18	28.46	29.42	30.51	33.41	35.95	37.45	38.96	40.72
12–15 years	786	43.47	6.74	33.06	34.69	35.81	37.97	43.29	48.29	50.55	52.41	54.90
16–19 years	775	51.27	5.35	42.23	44.40	45.70	47.56	51.12	55.07	56.75	58.17	59.90
20–29 years	711	51.80	4.81	43.90	45.69	46.65	48.19	51.79	55.02	56.85	58.07	59.65
30–39 years	728	51.86	4.89	43.97	45.46	46.79	48.47	51.71	55.34	57.30	58.53	59.70
40–49 years	689	52.69	4.86	44.46	46.31	47.46	49.63	52.59	55.95	57.73	58.68	60.52
50–59 years	613	53.02	5.20	45.01	46.51	47.47	49.16	53.06	56.68	58.40	59.72	61.49
60–69 years	555	53.08	4.97	45.01	46.93	48.19	49.77	52.82	56.50	58.50	59.43	61.08
70–79 years	354	53.55	5.11	45.15	46.85	47.88	50.48	53.73	56.66	58.58	60.14	61.69
80 years and over	173	54.04	4.90	45.97	48.25	48.85	50.60	53.69	57.40	59.97	61.17	61.85
20 years and over, age adjusted	3,823	52.58	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	211	32.47	3.88	26.23	27.65	28.38	29.79	32.23	34.87	36.34	37.34	38.86
12–15 years	233	43.13	6.47	32.08	34.70	36.58	38.68	42.48	47.84	50.09	52.25	53.32
16–19 years	216	48.69	4.97	41.35	42.24	43.28	45.06	48.50	51.69	53.56	54.77	56.87
20–29 years	194	49.09	4.18	42.53	43.45	44.51	46.17	48.97	51.51	53.22	54.62	56.97
30–39 years	153	49.92	4.56	42.26	43.92	45.10	46.33	49.90	52.95	54.59	55.67	57.63
40–49 years	146	49.77	4.82	42.01	44.19	45.01	46.39	49.75	52.45	54.51	55.74	58.20
50–59 years	102	50.12	4.13	42.09	45.12	45.95	47.15	50.24	53.04	54.01	55.31	56.81
60–69 years	99	*51.06	4.66	*43.81	*44.48	*45.78	*47.91	*50.96	*53.80	*56.09	*57.03	*58.60
70–79 years	36	*49.25	5.11	†	†	*42.94	*44.36	*49.07	*52.38	*55.20	*56.26	†
80 years and over	12	*51.76	5.03	†	†	†	*48.16	*49.57	*53.70	†	†	†
20 years and over, age adjusted	742	49.91	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	207	33.86	4.05	27.29	29.02	29.68	30.90	33.84	36.07	37.68	39.72	41.35
12–15 years	220	43.66	6.69	33.04	34.84	35.89	37.73	43.59	48.63	50.59	52.03	54.73
16–19 years	226	52.03	5.35	43.26	45.05	46.17	48.67	52.26	55.63	57.27	58.94	60.65
20–29 years	285	52.61	4.50	45.64	46.57	47.23	49.37	52.70	55.56	57.10	58.34	60.14
30–39 years	332	52.84	4.72	45.00	46.89	48.22	49.73	52.78	56.29	57.93	58.76	60.03
40–49 years	310	53.60	4.58	45.83	47.44	48.95	50.62	53.60	56.98	58.18	59.10	60.71
50–59 years	316	53.37	5.23	45.36	46.84	47.93	49.54	53.31	57.29	58.78	59.77	61.80
60–69 years	243	53.71	4.61	46.25	47.65	48.84	50.23	53.97	56.89	58.69	59.62	61.28
70–79 years	231	53.95	5.05	45.38	47.16	48.32	50.96	54.10	56.83	59.05	60.15	61.83
80 years and over	135	54.44	4.77	46.02	48.55	49.56	51.23	54.14	57.78	60.05	61.27	61.88
20 years and over, age adjusted	1,852	53.30	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	33.24	3.64	27.44	28.69	29.52	30.83	32.97	35.40	37.20	38.49	39.92
12–15 years	231	43.06	6.60	33.86	34.69	35.80	37.43	42.62	47.00	49.85	51.22	55.47
16–19 years	256	50.16	5.09	41.67	44.42	45.16	46.58	49.91	53.49	55.95	57.04	59.29
20–29 years	157	51.00	5.12	42.87	44.84	45.87	47.65	50.61	54.00	56.56	57.94	59.92
30–39 years	143	50.62	4.90	42.47	44.33	45.77	46.95	50.63	53.77	55.89	57.22	58.84
40–49 years	147	51.62	4.62	43.88	46.09	47.31	48.65	51.33	54.93	55.89	56.71	58.64
50–59 years	114	53.01	5.25	45.47	46.07	47.37	49.00	52.71	56.20	59.00	59.96	62.16
60–69 years	147	52.40	5.15	45.01	45.90	46.51	49.16	52.05	55.22	57.37	59.99	61.92
70–79 years	62	*52.96	4.84	*45.95	*47.57	*47.93	*48.71	*52.46	*56.32	*57.62	*59.14	*60.30
80 years and over	14	*53.00	4.41	†	†	†	*50.08	*52.30	*53.68	†	†	†
20 years and over, age adjusted	784	51.76	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	31.94	4.41	25.51	26.72	27.50	28.87	31.54	34.44	36.50	37.75	40.44
12–15 years	708	41.64	4.78	34.00	35.50	36.65	38.61	41.21	44.69	46.37	47.50	50.89
16–19 years	632	43.99	4.03	38.11	39.13	39.51	41.00	43.83	46.68	48.14	49.21	50.50
20–29 years	596	44.48	4.59	37.45	38.99	39.62	41.16	44.23	47.40	49.08	50.44	52.55
30–39 years	653	44.51	4.30	37.38	38.88	39.99	41.47	44.35	47.50	49.03	49.77	51.68
40–49 years	751	45.11	4.35	38.39	39.81	40.75	42.28	44.83	47.65	49.53	51.05	52.94
50–59 years	607	44.33	4.08	37.84	39.16	39.86	41.31	44.27	47.18	48.92	49.95	50.76
60–69 years	603	44.42	4.16	37.37	38.59	39.91	41.60	44.55	46.86	48.62	49.55	51.10
70–79 years	330	44.45	4.38	37.69	38.90	40.12	41.32	44.30	47.08	48.81	50.08	52.48
80 years and over	161	44.02	4.53	37.33	38.66	39.62	40.87	43.89	46.82	48.42	49.66	51.67
20 years and over, age adjusted	3,701	44.57	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 55. Lumbar spine vertebrae 2, 3, and 4 (L2, L3, L4) area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	236	30.89	4.28	24.71	25.84	26.57	27.36	30.32	33.57	35.06	36.30	38.01
12–15 years	228	40.25	3.83	33.82	35.33	36.08	38.03	40.22	43.11	44.45	44.93	45.78
16–19 years	178	42.05	3.50	36.88	37.71	38.69	39.47	41.91	43.62	45.11	47.00	48.79
20–29 years	145	42.23	3.98	36.42	37.67	38.37	39.12	41.74	44.99	46.67	47.36	48.03
30–39 years	149	42.61	4.15	35.47	36.45	38.01	39.62	42.81	45.46	46.71	47.48	48.62
40–49 years	137	43.25	3.74	37.75	38.67	39.37	40.28	43.09	45.93	47.03	48.30	†
50–59 years	103	*41.93	3.70	*36.30	*37.03	*37.74	*39.06	*41.97	*44.57	*45.42	*47.35	*48.42
60–69 years	137	*41.55	3.69	*35.63	*36.96	*37.43	*38.85	*41.35	*44.11	*45.26	*46.63	*47.27
70–79 years	44	*41.53	3.99	†	*36.82	*37.74	*38.95	*41.14	*43.67	*44.97	*46.63	†
80 years and over	6	*41.57	6.69	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	721	42.33	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	198	32.10	4.20	25.65	27.50	27.97	29.27	31.72	34.33	36.26	37.63	39.38
12–15 years	178	42.18	4.95	34.04	35.79	36.66	39.12	41.90	45.14	46.59	49.35	51.42
16–19 years	173	44.72	3.89	38.90	39.42	40.12	41.87	44.84	46.90	48.31	49.66	50.70
20–29 years	239	45.28	4.54	38.52	39.46	40.61	41.96	44.95	48.30	49.91	51.56	53.02
30–39 years	265	45.23	4.16	38.52	39.84	40.89	42.29	45.05	47.87	49.29	50.31	52.26
40–49 years	353	45.54	4.16	38.99	40.39	41.33	42.74	45.22	48.01	49.72	51.15	53.02
50–59 years	287	44.81	4.01	38.22	39.43	40.41	41.67	44.82	47.63	49.21	50.17	51.35
60–69 years	252	44.80	4.09	37.58	39.34	40.63	42.29	44.72	47.11	49.01	49.74	51.35
70–79 years	204	44.81	4.34	38.26	39.55	40.36	41.62	44.50	47.32	49.22	50.27	53.18
80 years and over	121	44.13	4.44	37.49	39.01	39.92	41.06	43.94	46.54	48.40	49.65	51.71
20 years and over, age adjusted	1,721	45.11	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	32.69	4.65	25.88	26.61	27.37	29.61	32.13	35.76	37.55	38.86	41.37
12–15 years	226	41.39	4.42	34.27	35.83	36.88	38.29	41.24	44.12	45.85	47.05	†
16–19 years	202	43.20	4.19	36.15	38.44	39.21	40.19	42.80	46.36	47.51	48.57	49.83
20–29 years	127	43.99	4.40	36.70	38.60	39.49	40.93	43.75	46.92	48.71	49.42	51.48
30–39 years	146	44.09	4.49	38.23	39.03	39.46	40.74	43.15	46.30	49.66	50.22	51.17
40–49 years	165	45.25	4.62	38.14	39.23	40.50	41.92	44.80	47.88	50.39	51.31	†
50–59 years	139	43.65	4.13	37.61	38.72	39.54	40.69	43.36	46.07	48.05	49.67	50.83
60–69 years	143	44.36	3.95	37.61	38.71	40.20	41.60	44.54	46.63	48.33	49.09	50.81
70–79 years	53	*44.47	3.93	*37.70	*38.65	*40.46	*41.78	*44.53	*47.57	*48.52	*49.62	†
80 years and over	23	*44.55	4.67	†	†	*38.21	*40.72	*44.24	*47.98	*49.04	†	†
20 years and over, age adjusted	796	44.34	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 56. Total proximal femur area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	24.02	4.15	17.65	18.71	19.22	21.14	23.86	26.70	28.62	29.36	31.12
12–15 years	778	34.65	5.73	25.68	27.56	28.68	30.18	34.29	38.55	40.54	42.36	44.09
16–19 years	762	39.80	4.31	32.95	34.62	35.46	36.69	39.49	42.37	44.40	45.44	47.14
20–29 years	722	40.36	4.29	33.73	34.96	35.87	37.28	40.15	43.21	44.73	46.04	47.75
30–39 years	736	41.17	4.42	34.67	35.71	36.54	37.95	40.97	43.94	45.67	46.92	48.91
40–49 years	721	42.21	4.25	35.51	36.82	37.92	39.20	42.14	45.05	46.76	48.07	49.52
50–59 years	670	43.01	4.39	35.92	37.55	38.48	40.05	43.01	45.71	47.44	48.81	50.82
60–69 years	689	43.35	4.42	36.11	37.78	39.09	40.71	43.00	46.43	47.86	48.88	51.05
70–79 years	487	44.95	4.16	38.36	39.46	40.49	42.03	44.79	47.48	49.24	50.11	51.61
80 years and over	265	45.50	4.33	37.72	39.64	40.69	42.63	45.31	48.38	50.18	51.14	51.97
20 years and over, age adjusted	4,290	42.27	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	23.61	3.96	17.90	18.60	19.24	20.98	23.45	25.99	27.32	28.61	30.57
12–15 years	232	34.44	5.39	25.30	27.69	28.98	30.68	34.19	37.91	39.55	41.19	42.90
16–19 years	212	38.25	3.80	31.99	33.24	34.17	35.91	38.21	40.49	42.13	43.05	44.99
20–29 years	200	39.00	4.00	32.56	34.01	35.29	36.33	38.60	41.40	43.04	44.24	45.81
30–39 years	153	39.49	4.09	33.96	34.81	35.77	36.18	38.90	42.07	43.64	45.12	46.29
40–49 years	154	40.38	4.01	34.43	35.70	36.32	37.33	40.07	42.86	44.55	45.28	47.00
50–59 years	111	40.83	4.18	33.73	35.66	36.42	38.14	40.62	43.50	45.77	46.55	47.10
60–69 years	118	41.74	4.54	35.12	36.14	37.31	39.06	41.15	44.53	45.87	46.88	49.13
70–79 years	47	*41.76	3.62	*34.91	*37.17	*37.60	*39.31	*41.07	*44.60	*45.99	*46.61	†
80 years and over	14	*41.97	4.23	†	†	†	†	*41.03	†	†	†	†
20 years and over, age adjusted	797	40.34	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	24.10	4.29	17.41	18.53	19.18	21.01	23.87	26.87	28.77	29.40	31.38
12–15 years	218	34.99	5.91	26.44	27.96	28.99	30.16	34.76	39.50	41.18	42.91	45.69
16–19 years	223	40.28	4.30	33.89	35.31	35.86	37.29	39.91	42.85	44.90	45.77	47.39
20–29 years	285	41.06	4.23	34.42	35.62	36.56	37.75	40.75	43.84	45.55	46.87	48.19
30–39 years	337	42.14	4.21	35.48	36.99	37.69	38.90	41.97	44.65	46.40	47.48	49.07
40–49 years	329	42.92	4.09	36.54	37.96	38.65	39.76	42.84	45.98	47.14	48.28	49.62
50–59 years	341	43.37	4.29	36.00	37.97	39.02	40.70	43.27	45.79	47.52	49.08	51.16
60–69 years	309	43.98	4.07	37.60	39.05	39.86	41.08	43.45	46.65	48.15	49.41	51.23
70–79 years	330	45.32	4.04	39.06	40.19	40.88	42.55	45.06	47.69	49.40	50.52	52.09
80 years and over	214	45.84	4.30	37.76	39.95	41.26	43.22	45.84	48.66	50.45	51.25	52.76
20 years and over, age adjusted	2,145	42.92	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	24.39	3.71	18.92	20.19	20.72	21.73	23.69	26.48	28.20	29.15	31.01
12–15 years	227	34.05	5.34	25.99	27.40	28.11	30.37	34.03	37.55	38.84	40.53	42.58
16–19 years	251	39.17	4.39	32.75	34.14	34.72	35.78	38.56	41.83	43.45	45.17	47.14
20–29 years	160	40.40	4.31	33.63	34.79	35.80	37.47	40.23	43.36	44.65	45.93	48.10
30–39 years	145	40.07	3.63	34.20	35.12	36.03	37.60	39.92	42.23	43.42	44.91	46.05
40–49 years	151	41.16	4.44	34.39	35.58	36.87	38.13	40.75	43.40	46.07	47.05	49.78
50–59 years	126	43.05	4.41	36.44	37.88	38.34	39.37	42.94	45.93	48.31	48.73	†
60–69 years	185	42.69	4.21	35.62	36.99	38.38	40.06	42.26	45.25	46.84	48.11	50.15
70–79 years	75	*43.81	4.41	*36.73	*38.75	*39.05	*39.97	*43.60	*46.93	*47.87	*49.10	*50.45
80 years and over	22	*44.46	3.17	†	†	*40.78	*41.86	*44.12	*45.42	*46.94	†	†
20 years and over, age adjusted	864	41.61	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	23.73	3.76	18.24	18.98	19.39	20.77	23.60	26.36	27.70	28.72	30.30
12–15 years	715	30.12	3.25	25.15	26.00	26.71	27.89	29.70	32.30	33.55	34.42	35.94
16–19 years	673	30.84	3.09	25.96	26.78	27.45	28.61	30.68	32.78	34.00	34.96	36.18
20–29 years	635	31.25	3.11	26.16	27.22	27.87	28.93	31.08	33.33	34.47	35.30	36.50
30–39 years	639	31.42	3.02	26.65	27.53	28.34	29.34	31.24	33.52	34.64	35.35	36.27
40–49 years	750	32.26	3.22	27.30	28.28	29.09	30.07	32.03	34.30	35.68	36.56	37.48
50–59 years	595	32.76	3.10	27.87	28.73	29.63	30.67	32.54	34.82	36.22	36.69	37.89
60–69 years	633	33.79	3.12	28.96	29.70	30.57	31.68	33.49	35.87	37.07	37.83	38.93
70–79 years	425	34.02	3.22	28.71	30.06	30.82	31.88	33.90	36.08	37.63	38.37	39.65
80 years and over	253	34.54	3.19	29.61	30.57	31.22	32.39	34.52	36.43	37.39	38.07	39.88
20 years and over, age adjusted	3,930	32.38	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 56. Total proximal femur area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	23.28	3.87	17.09	18.39	19.00	20.37	23.27	25.89	27.00	28.25	29.39
12–15 years	227	29.17	2.99	24.79	25.60	26.22	27.19	28.65	31.14	32.10	33.03	34.54
16–19 years	186	29.86	3.00	25.36	25.91	26.66	27.43	29.65	32.05	32.85	33.60	35.16
20–29 years	148	30.11	3.09	25.83	26.49	26.82	27.76	29.63	31.87	33.24	33.78	36.12
30–39 years	137	30.08	2.70	25.84	27.02	27.70	28.43	30.05	31.54	32.41	33.54	34.33
40–49 years	133	30.73	2.79	26.58	27.29	27.87	28.78	30.75	32.07	33.11	34.05	†
50–59 years	97	*30.91	3.08	*26.80	*27.33	*27.70	*28.56	*30.39	*32.98	*34.00	*34.63	*36.24
60–69 years	130	*31.99	2.87	*27.20	*28.63	*29.41	*30.10	*31.37	*34.10	*35.53	*36.26	*36.50
70–79 years	49	*32.89	3.94	†	*28.10	*28.82	*29.31	*31.92	*35.50	*37.31	*38.29	†
80 years and over	12	*31.39	1.76	†	†	†	†	*31.16	*32.03	†	†	†
20 years and over, age adjusted	706	30.84	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	23.89	3.78	18.36	19.01	19.40	20.73	23.63	26.45	27.73	29.18	30.65
12–15 years	185	30.53	3.15	25.72	26.58	27.38	28.39	29.97	32.82	33.96	34.59	36.22
16–19 years	198	31.19	2.99	26.22	27.06	27.78	29.46	31.23	33.05	34.05	34.97	36.21
20–29 years	262	31.78	3.06	26.60	27.63	28.31	29.64	31.67	33.97	35.05	35.69	36.91
30–39 years	267	31.99	2.97	27.13	28.25	29.04	29.93	31.78	33.93	35.11	35.52	36.84
40–49 years	357	32.61	3.21	27.56	28.78	29.40	30.29	32.32	34.60	36.28	36.83	37.86
50–59 years	291	33.31	2.93	28.80	29.95	30.46	31.18	33.05	35.35	36.55	37.05	38.19
60–69 years	286	34.11	3.06	29.36	30.32	31.02	32.11	33.70	36.03	37.17	38.19	38.99
70–79 years	274	34.27	3.12	29.16	30.61	31.39	32.11	34.07	36.15	37.92	38.47	39.65
80 years and over	191	34.78	3.15	29.68	30.70	31.37	32.70	34.80	36.50	37.46	38.23	40.02
20 years and over, age adjusted	1,928	32.83	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	24.37	3.86	17.44	19.34	20.09	21.48	24.45	26.97	28.53	29.72	30.44
12–15 years	226	30.19	3.36	24.94	25.67	26.46	28.00	30.03	31.85	33.28	34.57	36.50
16–19 years	206	30.77	3.24	25.97	26.72	27.50	28.29	30.53	32.84	34.13	34.70	36.69
20–29 years	136	30.86	3.07	25.75	27.53	28.05	28.78	30.63	32.49	33.29	34.84	36.29
30–39 years	140	31.15	3.14	26.49	27.52	27.92	29.02	30.89	32.89	34.69	35.35	†
40–49 years	160	31.98	3.10	27.10	28.22	28.85	29.94	31.95	33.86	34.91	35.98	36.69
50–59 years	134	31.62	3.02	26.98	27.39	28.28	29.83	31.25	33.43	34.78	35.69	†
60–69 years	141	32.97	3.30	27.74	28.92	29.57	30.66	32.66	35.07	36.61	37.11	†
70–79 years	66	*33.13	3.34	*27.61	*28.98	*29.66	*30.42	*33.35	*34.91	*35.61	*36.08	*39.80
80 years and over	31	*34.47	3.49	†	*29.48	*30.36	*31.74	*34.58	*36.68	*37.24	†	†
20 years and over, age adjusted	808	31.85	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 57. Femur neck area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	4.22	0.39	3.59	3.70	3.79	3.95	4.23	4.50	4.64	4.71	4.88
12–15 years	778	5.07	0.53	4.20	4.34	4.45	4.67	5.09	5.46	5.65	5.73	5.84
16–19 years	762	5.48	0.40	4.80	4.98	5.06	5.20	5.48	5.74	5.86	5.95	6.10
20–29 years	722	5.51	0.37	4.90	5.04	5.12	5.24	5.52	5.74	5.91	5.98	6.12
30–39 years	736	5.55	0.40	4.88	5.03	5.15	5.26	5.55	5.82	5.95	6.07	6.23
40–49 years	721	5.62	0.40	4.96	5.09	5.22	5.36	5.62	5.88	6.00	6.13	6.26
50–59 years	670	5.69	0.41	4.98	5.16	5.29	5.41	5.71	5.95	6.08	6.19	6.32
60–69 years	689	5.72	0.42	5.06	5.20	5.30	5.44	5.69	5.94	6.12	6.28	6.38
70–79 years	487	5.79	0.38	5.17	5.34	5.39	5.55	5.77	6.03	6.13	6.19	6.39
80 years and over	265	5.81	0.37	5.19	5.37	5.45	5.55	5.82	6.05	6.17	6.27	6.49
20 years and over, age adjusted	4,290	5.63	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	4.13	0.38	3.56	3.65	3.69	3.81	4.13	4.36	4.52	4.62	4.79
12–15 years	232	5.02	0.54	4.05	4.31	4.42	4.63	5.03	5.39	5.58	5.69	5.88
16–19 years	212	5.28	0.37	4.57	4.80	4.90	5.04	5.27	5.51	5.64	5.72	5.86
20–29 years	200	5.28	0.40	4.45	4.78	4.89	5.03	5.30	5.53	5.64	5.76	5.89
30–39 years	153	5.34	0.39	4.63	4.78	4.90	5.08	5.33	5.59	5.74	5.85	6.01
40–49 years	154	5.39	0.35	4.82	4.91	5.02	5.12	5.39	5.60	5.79	5.84	5.98
50–59 years	111	5.41	0.40	4.86	4.99	5.07	5.22	5.38	5.57	5.77	5.90	6.09
60–69 years	118	5.48	0.41	4.89	4.99	5.10	5.22	5.42	5.76	5.90	5.97	6.07
70–79 years	47	*5.50	0.29	*5.03	*5.13	*5.20	*5.30	*5.47	*5.73	*5.81	*5.89	†
80 years and over	14	*5.51	0.45	†	†	†	*5.08	*5.60	*5.63	†	†	†
20 years and over, age adjusted	797	5.39	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	4.26	0.40	3.55	3.72	3.83	3.98	4.27	4.53	4.68	4.74	4.89
12–15 years	218	5.11	0.54	4.19	4.34	4.44	4.68	5.16	5.54	5.69	5.77	5.90
16–19 years	223	5.53	0.37	4.91	5.02	5.13	5.30	5.57	5.76	5.90	5.97	6.10
20–29 years	285	5.60	0.34	5.06	5.15	5.20	5.36	5.59	5.80	5.96	6.03	6.18
30–39 years	337	5.65	0.38	5.04	5.16	5.25	5.38	5.64	5.88	6.05	6.10	6.29
40–49 years	329	5.69	0.39	5.05	5.22	5.31	5.43	5.70	5.94	6.05	6.17	6.30
50–59 years	341	5.74	0.38	5.10	5.28	5.36	5.46	5.75	5.98	6.09	6.21	6.32
60–69 years	309	5.78	0.40	5.19	5.31	5.40	5.52	5.74	5.95	6.18	6.30	6.38
70–79 years	330	5.82	0.36	5.26	5.35	5.43	5.58	5.81	6.03	6.15	6.24	6.40
80 years and over	214	5.85	0.36	5.26	5.41	5.49	5.59	5.84	6.08	6.18	6.30	6.50
20 years and over, age adjusted	2,145	5.70	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	4.16	0.36	3.59	3.70	3.80	3.93	4.16	4.37	4.49	4.57	4.80
12–15 years	227	4.99	0.50	4.21	4.33	4.49	4.63	4.99	5.28	5.46	5.54	5.72
16–19 years	251	5.39	0.44	4.58	4.84	4.97	5.12	5.38	5.66	5.80	5.96	6.11
20–29 years	160	5.48	0.36	4.84	5.05	5.12	5.21	5.47	5.74	5.86	5.95	6.08
30–39 years	145	5.48	0.39	4.85	4.95	5.04	5.23	5.48	5.70	5.91	5.99	6.11
40–49 years	151	5.49	0.41	4.87	4.97	5.02	5.21	5.51	5.76	5.89	5.99	6.13
50–59 years	126	5.64	0.47	4.90	5.07	5.16	5.33	5.62	5.94	6.12	6.21	6.43
60–69 years	185	5.57	0.40	4.96	5.01	5.13	5.31	5.59	5.78	5.93	6.01	6.15
70–79 years	75	*5.65	0.46	*4.94	*5.14	*5.27	*5.41	*5.61	*5.86	*6.02	*6.13	*6.20
80 years and over	22	*5.56	0.30	†	†	*5.22	*5.41	*5.54	*5.77	†	†	†
20 years and over, age adjusted	864	5.54	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	4.08	0.43	3.46	3.54	3.62	3.76	4.04	4.35	4.53	4.67	4.85
12–15 years	715	4.67	0.39	4.07	4.19	4.29	4.42	4.68	4.93	5.07	5.17	5.34
16–19 years	673	4.74	0.38	4.09	4.25	4.35	4.47	4.75	4.99	5.15	5.21	5.28
20–29 years	635	4.78	0.38	4.11	4.27	4.35	4.51	4.78	5.02	5.17	5.26	5.40
30–39 years	639	4.81	0.39	4.14	4.31	4.41	4.57	4.82	5.07	5.19	5.28	5.39
40–49 years	750	4.84	0.38	4.23	4.37	4.47	4.59	4.85	5.10	5.22	5.33	5.39
50–59 years	595	4.88	0.40	4.21	4.39	4.49	4.66	4.89	5.14	5.26	5.35	5.47
60–69 years	633	4.97	0.37	4.35	4.47	4.59	4.72	4.97	5.22	5.34	5.41	5.52
70–79 years	425	4.97	0.37	4.38	4.54	4.58	4.73	4.98	5.22	5.33	5.44	5.59
80 years and over	253	5.03	0.38	4.43	4.53	4.64	4.80	5.04	5.26	5.37	5.53	5.68
20 years and over, age adjusted	3,930	4.86	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 57. Femur neck area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	3.99	0.43	3.31	3.43	3.51	3.64	3.91	4.31	4.46	4.59	4.72
12–15 years	227	4.57	0.34	4.00	4.12	4.17	4.31	4.58	4.81	4.88	4.97	5.11
16–19 years	186	4.60	0.43	3.92	4.08	4.19	4.35	4.56	4.88	5.02	5.09	5.27
20–29 years	148	4.60	0.37	3.94	4.09	4.20	4.31	4.63	4.88	5.00	5.05	5.12
30–39 years	137	4.68	0.34	4.08	4.19	4.32	4.48	4.67	4.90	5.01	5.10	5.16
40–49 years	133	4.75	0.32	4.16	4.32	4.40	4.52	4.73	4.96	5.05	5.12	5.34
50–59 years	97	*4.68	0.40	*4.05	*4.29	*4.35	*4.39	*4.67	*4.94	*5.03	*5.09	*5.25
60–69 years	130	*4.77	0.34	*4.09	*4.33	*4.47	*4.55	*4.78	*5.01	*5.12	*5.16	*5.29
70–79 years	49	*4.82	0.41	†	*4.34	*4.42	*4.54	*4.67	*5.06	*5.25	*5.46	†
80 years and over	12	*4.56	0.31	†	†	†	†	*4.51	*4.72	†	†	†
20 years and over, age adjusted	706	4.70	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	4.11	0.43	3.48	3.54	3.66	3.79	4.05	4.37	4.57	4.68	4.90
12–15 years	185	4.72	0.36	4.15	4.26	4.32	4.45	4.71	4.98	5.10	5.20	5.34
16–19 years	198	4.79	0.36	4.18	4.30	4.40	4.59	4.78	5.03	5.16	5.21	5.27
20–29 years	262	4.85	0.36	4.18	4.34	4.46	4.62	4.87	5.09	5.21	5.34	5.43
30–39 years	267	4.87	0.39	4.15	4.40	4.49	4.65	4.90	5.10	5.26	5.30	5.39
40–49 years	357	4.88	0.37	4.28	4.42	4.50	4.67	4.88	5.14	5.25	5.34	5.40
50–59 years	291	4.94	0.37	4.30	4.44	4.59	4.72	4.95	5.17	5.30	5.39	5.50
60–69 years	286	5.00	0.35	4.37	4.52	4.64	4.74	4.98	5.24	5.37	5.45	5.53
70–79 years	274	5.00	0.37	4.43	4.55	4.66	4.74	4.99	5.24	5.36	5.45	5.59
80 years and over	191	5.06	0.36	4.46	4.55	4.70	4.86	5.06	5.27	5.38	5.53	5.68
20 years and over, age adjusted	1,928	4.91	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	4.07	0.48	3.27	3.46	3.56	3.71	4.09	4.35	4.55	4.70	4.89
12–15 years	226	4.64	0.45	3.78	4.06	4.23	4.37	4.65	4.93	5.08	5.27	5.38
16–19 years	206	4.69	0.43	3.99	4.17	4.28	4.40	4.68	4.92	5.16	5.23	5.32
20–29 years	136	4.67	0.39	3.97	4.22	4.28	4.39	4.68	4.94	5.09	5.16	5.29
30–39 years	140	4.79	0.43	4.08	4.23	4.36	4.50	4.76	5.08	5.22	5.32	5.46
40–49 years	160	4.74	0.42	3.93	4.15	4.27	4.52	4.73	5.01	5.18	5.33	5.41
50–59 years	134	4.78	0.39	4.14	4.30	4.40	4.55	4.81	5.03	5.18	5.22	5.30
60–69 years	141	4.88	0.46	3.95	4.32	4.45	4.64	4.93	5.18	5.25	5.37	5.44
70–79 years	66	*4.90	0.40	†	*4.37	*4.39	*4.57	*4.96	*5.17	*5.26	*5.31	*5.41
80 years and over	31	*4.89	0.49	†	*4.39	*4.58	*4.68	*4.89	*5.09	*5.24	*5.49	†
20 years and over, age adjusted	808	4.78	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 58. Trochanter area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	6.05	1.69	3.68	3.97	4.23	4.73	5.90	7.07	7.98	8.38	9.20
12–15 years	778	10.49	2.12	6.99	7.85	8.24	8.94	10.49	11.97	12.69	13.14	14.11
16–19 years	762	12.55	1.58	10.16	10.61	10.96	11.46	12.46	13.45	14.15	14.68	15.26
20–29 years	722	12.65	1.50	10.43	10.76	11.09	11.58	12.57	13.59	14.25	14.61	15.37
30–39 years	736	12.85	1.50	10.60	10.94	11.24	11.78	12.83	13.75	14.38	14.75	15.32
40–49 years	721	13.18	1.51	10.99	11.28	11.59	12.10	13.07	14.18	14.82	15.28	15.86
50–59 years	670	13.59	1.62	11.07	11.59	11.95	12.51	13.49	14.66	15.37	15.70	16.17
60–69 years	689	13.75	1.56	11.48	11.84	12.15	12.68	13.65	14.85	15.40	15.67	16.34
70–79 years	487	14.36	1.60	11.91	12.30	12.68	13.22	14.20	15.31	16.06	16.52	17.26
80 years and over	265	14.47	1.60	11.77	12.49	12.92	13.37	14.36	15.53	16.08	16.41	17.36
20 years and over, age adjusted	4,290	13.29	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	5.89	1.56	3.53	4.01	4.24	4.74	5.75	7.00	7.51	7.98	8.54
12–15 years	232	10.26	2.05	6.33	7.64	8.12	8.96	10.33	11.57	12.19	12.60	13.41
16–19 years	212	11.76	1.49	9.75	9.92	10.14	10.63	11.59	12.76	13.16	13.72	14.52
20–29 years	200	12.13	1.28	10.13	10.53	10.77	11.20	12.18	12.93	13.47	13.98	14.36
30–39 years	153	12.25	1.36	9.99	10.50	10.83	11.29	12.20	13.10	13.49	13.70	14.32
40–49 years	154	12.56	1.42	10.36	10.70	11.00	11.47	12.36	13.62	14.08	14.29	15.10
50–59 years	111	12.76	1.39	10.25	11.09	11.54	11.89	12.62	13.72	14.55	14.83	14.94
60–69 years	118	13.18	1.48	10.93	11.43	11.80	12.14	13.20	13.88	14.36	15.16	15.58
70–79 years	47	*13.09	1.19	*11.00	*11.45	*11.69	*12.16	*12.95	*13.87	*14.20	*14.50	*15.07
80 years and over	14	*13.21	1.07	†	†	†	*12.19	*13.00	†	†	†	†
20 years and over, age adjusted	797	12.58	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	6.04	1.75	3.57	3.88	4.15	4.64	5.89	7.04	8.12	8.42	9.25
12–15 years	218	10.65	2.21	6.96	7.96	8.30	8.97	10.74	12.21	13.03	13.55	14.37
16–19 years	223	12.73	1.54	10.32	10.83	11.14	11.68	12.63	13.54	14.26	14.78	15.26
20–29 years	285	12.82	1.51	10.52	10.84	11.19	11.74	12.76	13.71	14.38	14.69	15.64
30–39 years	337	13.17	1.44	10.86	11.26	11.69	12.15	13.15	14.01	14.60	14.84	15.43
40–49 years	329	13.39	1.46	11.14	11.56	11.91	12.36	13.29	14.27	14.99	15.40	16.00
50–59 years	341	13.72	1.58	11.10	11.64	12.19	12.70	13.55	14.75	15.45	15.87	16.20
60–69 years	309	13.95	1.49	11.76	12.08	12.40	12.89	13.82	14.98	15.52	15.91	16.37
70–79 years	330	14.50	1.59	12.06	12.47	12.82	13.37	14.33	15.52	16.14	16.70	17.31
80 years and over	214	14.60	1.59	11.81	12.66	12.99	13.56	14.49	15.70	16.12	16.76	17.41
20 years and over, age adjusted	2,145	13.50	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	6.36	1.55	4.03	4.39	4.63	5.08	6.25	7.37	7.94	8.29	8.93
12–15 years	227	10.38	2.03	7.08	7.84	8.20	8.98	10.40	11.63	12.29	12.91	13.98
16–19 years	251	12.41	1.59	10.02	10.70	10.95	11.34	12.17	13.37	13.99	14.47	15.43
20–29 years	160	12.79	1.53	10.38	11.01	11.33	11.75	12.54	13.64	14.22	14.78	15.53
30–39 years	145	12.45	1.30	10.33	10.77	11.12	11.62	12.35	13.34	13.73	14.01	14.57
40–49 years	151	12.95	1.54	10.76	11.11	11.35	11.82	12.73	13.91	14.60	14.74	15.39
50–59 years	126	13.61	1.74	11.27	11.46	11.74	12.31	13.46	14.65	15.08	15.48	16.41
60–69 years	185	13.53	1.38	11.25	11.55	12.04	12.62	13.54	14.28	14.82	15.10	15.49
70–79 years	75	*13.89	1.50	*11.51	*11.87	*12.29	*12.81	*13.89	*14.65	*15.57	*15.99	*16.21
80 years and over	22	*13.75	1.50	†	†	*12.04	*12.91	*13.58	*14.71	*15.22	†	†
20 years and over, age adjusted	864	13.09	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	6.51	1.51	4.17	4.60	4.87	5.44	6.35	7.62	8.02	8.61	9.16
12–15 years	715	9.20	1.23	7.17	7.73	8.02	8.37	9.17	9.96	10.34	10.80	11.28
16–19 years	673	9.62	1.22	7.74	8.02	8.33	8.76	9.59	10.40	10.76	11.10	11.69
20–29 years	635	9.65	1.23	7.59	8.11	8.41	8.82	9.57	10.46	10.95	11.26	11.75
30–39 years	639	9.67	1.13	7.93	8.27	8.40	8.86	9.66	10.47	10.88	11.07	11.56
40–49 years	750	10.02	1.22	8.15	8.48	8.76	9.18	9.94	10.85	11.30	11.61	11.99
50–59 years	595	10.22	1.21	8.29	8.69	8.92	9.34	10.21	10.92	11.49	11.81	12.19
60–69 years	633	10.60	1.20	8.68	9.09	9.32	9.77	10.59	11.42	11.83	12.12	12.57
70–79 years	425	10.87	1.30	8.84	9.29	9.56	10.00	10.73	11.70	12.23	12.62	13.15
80 years and over	253	11.04	1.25	9.05	9.47	9.77	10.04	10.96	11.93	12.39	12.64	13.01
20 years and over, age adjusted	3,930	10.09	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 58. Trochanter area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	6.36	1.54	3.75	4.15	4.67	5.35	6.45	7.33	7.88	8.25	8.92
12–15 years	227	8.79	1.17	6.95	7.39	7.66	8.02	8.74	9.43	9.75	10.07	10.70
16–19 years	186	9.28	1.11	7.59	7.86	8.14	8.54	9.27	10.06	10.48	10.70	11.01
20–29 years	148	9.27	1.04	7.65	7.96	8.11	8.51	9.20	9.89	10.44	10.64	†
30–39 years	137	9.22	1.10	7.45	8.01	8.18	8.40	9.12	9.92	10.45	10.67	11.10
40–49 years	133	9.49	1.01	7.90	8.20	8.35	8.78	9.42	10.18	10.53	10.79	11.19
50–59 years	97	*9.73	1.11	*8.03	*8.21	*8.52	*8.90	*9.62	*10.38	*10.89	*11.21	*11.44
60–69 years	130	*10.03	1.26	*8.07	*8.38	*8.73	*9.15	*9.98	*10.73	*11.46	*11.72	*12.21
70–79 years	49	*10.44	1.39	†	*9.02	*9.11	*9.29	*10.07	*11.51	*11.83	*11.91	†
80 years and over	12	*10.04	0.93	†	†	†	*9.34	*9.92	*10.10	†	†	†
20 years and over, age adjusted	706	9.59	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	6.54	1.50	4.30	4.61	4.95	5.47	6.29	7.58	7.98	8.63	9.37
12–15 years	185	9.34	1.19	7.55	7.94	8.13	8.42	9.22	10.08	10.47	10.86	11.43
16–19 years	198	9.75	1.18	7.89	8.06	8.43	9.00	9.77	10.48	10.85	11.20	11.72
20–29 years	262	9.83	1.26	7.72	8.31	8.58	9.03	9.76	10.64	11.10	11.39	11.91
30–39 years	267	9.84	1.09	8.10	8.35	8.65	9.03	9.81	10.54	11.01	11.21	11.81
40–49 years	357	10.14	1.22	8.23	8.67	8.93	9.29	10.03	10.98	11.48	11.68	12.12
50–59 years	291	10.36	1.19	8.60	8.85	9.10	9.64	10.37	11.03	11.54	11.84	12.27
60–69 years	286	10.69	1.15	8.83	9.19	9.41	9.85	10.65	11.47	11.92	12.12	12.59
70–79 years	274	10.97	1.26	8.96	9.50	9.71	10.14	10.86	11.73	12.28	12.64	13.16
80 years and over	191	11.13	1.26	9.05	9.56	9.80	10.17	11.12	11.94	12.44	12.75	13.18
20 years and over, age adjusted	1,928	10.23	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	6.86	1.54	4.16	4.65	5.24	5.75	6.85	7.89	8.52	8.96	9.40
12–15 years	226	9.28	1.29	7.21	7.79	8.10	8.41	9.19	9.99	10.47	10.78	†
16–19 years	206	9.50	1.28	7.58	7.83	8.10	8.55	9.35	10.46	10.77	11.16	11.55
20–29 years	136	9.40	1.15	7.68	8.19	8.36	8.67	9.18	10.18	10.77	10.96	11.31
30–39 years	140	9.53	1.21	7.60	7.96	8.23	8.69	9.51	10.37	10.70	10.91	11.18
40–49 years	160	9.98	1.10	8.35	8.62	8.82	9.17	9.95	10.66	11.13	11.35	†
50–59 years	134	9.93	1.17	7.88	8.44	8.64	9.10	9.94	10.74	11.13	11.38	11.76
60–69 years	141	10.52	1.42	8.04	8.73	9.29	9.63	10.33	11.54	12.01	12.27	†
70–79 years	66	*10.39	1.45	*8.23	*8.72	*8.95	*9.35	*10.13	*11.16	*11.95	*12.31	*12.90
80 years and over	31	*10.84	1.14	†	*9.27	*9.68	*9.87	*10.52	*11.75	†	†	†
20 years and over, age adjusted	808	9.90	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 59. Intertrochanter area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	13.74	2.40	9.91	10.62	11.34	12.06	13.66	15.37	16.03	16.81	17.83
12–15 years	778	19.09	3.48	14.12	15.17	15.64	16.41	18.88	21.37	22.85	23.89	25.34
16–19 years	762	21.76	2.99	17.30	18.05	18.65	19.54	21.65	23.79	24.94	25.52	27.13
20–29 years	722	22.19	3.13	17.43	18.39	18.92	19.97	22.00	24.09	25.64	26.42	27.98
30–39 years	736	22.75	3.21	18.04	18.88	19.57	20.50	22.37	24.64	25.88	27.14	28.49
40–49 years	721	23.39	3.06	18.84	19.53	20.35	21.13	23.32	25.28	26.64	27.55	28.61
50–59 years	670	23.72	3.05	18.96	20.11	20.62	21.69	23.50	25.49	26.76	28.03	29.04
60–69 years	689	23.88	3.11	18.96	20.17	20.88	21.80	23.74	25.86	27.07	27.98	29.45
70–79 years	487	24.79	3.02	20.01	21.04	21.63	22.80	24.59	26.61	27.83	28.59	29.81
80 years and over	265	25.21	3.27	19.88	21.16	21.93	22.88	25.14	27.54	28.64	29.28	31.17
20 years and over, age adjusted	4,290	23.34	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	13.58	2.33	10.03	10.54	11.11	11.82	13.48	14.89	15.86	16.50	17.66
12–15 years	232	19.15	3.23	14.18	15.36	15.88	16.70	18.71	20.93	22.76	23.72	24.66
16–19 years	212	21.21	2.70	16.83	17.40	18.19	19.15	21.26	23.04	23.64	24.53	25.89
20–29 years	200	21.57	2.90	17.33	18.10	18.64	19.74	21.18	23.09	24.59	25.39	26.66
30–39 years	153	21.90	3.03	17.77	18.46	18.78	19.66	21.56	23.68	25.38	26.06	27.09
40–49 years	154	22.42	3.02	17.65	18.67	19.71	20.38	22.23	24.17	25.31	26.16	27.93
50–59 years	111	22.65	3.15	16.92	19.22	19.80	20.51	22.21	24.46	26.19	26.99	27.64
60–69 years	118	23.07	3.31	18.02	19.10	19.67	20.90	22.24	24.95	26.25	27.40	27.83
70–79 years	47	*23.16	2.86	†	*19.64	*20.26	*20.60	*22.85	*24.66	*26.13	*27.39	†
80 years and over	14	*23.24	3.69	†	†	†	†	*21.99	†	†	†	†
20 years and over, age adjusted	797	22.35	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	13.79	2.43	9.61	10.50	11.34	11.99	13.69	15.46	16.27	16.82	17.83
12–15 years	218	19.23	3.52	14.26	15.26	15.66	16.49	19.11	21.66	22.87	23.90	25.86
16–19 years	223	22.00	3.02	17.59	18.17	18.72	19.70	21.78	24.01	25.11	25.89	27.47
20–29 years	285	22.63	3.15	18.14	18.81	19.29	20.15	22.31	24.53	26.10	27.10	28.15
30–39 years	337	23.31	3.16	18.86	19.62	20.18	20.98	22.97	24.91	26.54	27.57	28.99
40–49 years	329	23.83	2.95	19.11	20.24	20.64	21.60	23.75	25.58	27.05	27.69	28.90
50–59 years	341	23.90	3.01	19.01	20.36	20.88	21.89	23.73	25.58	26.80	28.24	29.29
60–69 years	309	24.25	2.91	19.57	20.85	21.31	22.17	23.91	26.12	27.28	28.22	29.47
70–79 years	330	24.99	2.97	20.26	21.18	21.86	23.21	24.78	26.75	27.97	28.87	29.86
80 years and over	214	25.38	3.25	19.90	21.22	22.08	23.10	25.34	27.59	28.71	29.35	31.24
20 years and over, age adjusted	2,145	23.72	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	13.86	2.20	10.70	11.38	11.81	12.28	13.44	15.25	16.02	16.97	17.76
12–15 years	227	18.67	3.33	13.82	14.65	15.30	16.16	18.37	20.83	21.73	22.59	24.85
16–19 years	251	21.36	3.08	16.91	17.65	18.32	18.99	20.97	23.30	24.60	25.42	27.09
20–29 years	160	22.11	3.05	17.16	17.88	18.85	19.96	22.04	24.22	25.49	25.81	27.68
30–39 years	145	22.13	2.60	17.92	18.71	19.32	20.16	21.98	23.72	24.83	25.61	27.04
40–49 years	151	22.71	3.27	17.75	19.00	19.65	20.79	21.89	24.19	25.43	27.29	†
50–59 years	126	23.79	3.07	18.92	19.99	20.67	21.36	23.57	26.04	26.80	28.05	28.85
60–69 years	185	23.59	3.08	18.56	19.77	20.29	21.35	23.49	25.73	26.51	27.56	28.82
70–79 years	75	*24.26	3.28	*19.51	*20.26	*20.83	*21.48	*24.15	*26.40	*27.55	*28.09	*29.66
80 years and over	22	*25.13	3.05	†	†	*21.85	*23.51	*24.79	*26.25	*28.62	†	†
20 years and over, age adjusted	864	22.98	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	13.13	2.14	9.98	10.43	10.84	11.41	13.01	14.70	15.42	15.87	17.01
12–15 years	715	16.23	2.21	12.72	13.48	13.98	14.67	16.03	17.67	18.50	19.19	20.32
16–19 years	673	16.47	2.09	13.09	13.82	14.26	14.87	16.39	17.93	18.70	19.21	19.94
20–29 years	635	16.82	2.08	13.60	14.11	14.56	15.19	16.70	18.16	19.02	19.54	20.31
30–39 years	639	16.93	2.08	13.85	14.29	14.87	15.46	16.71	18.23	19.04	19.58	20.36
40–49 years	750	17.40	2.22	14.20	14.80	15.15	15.87	17.16	18.70	19.63	20.24	21.03
50–59 years	595	17.64	2.11	14.48	15.02	15.54	16.12	17.40	19.05	19.76	20.44	21.43
60–69 years	633	18.21	2.15	15.09	15.69	16.08	16.65	18.00	19.61	20.29	21.06	21.95
70–79 years	425	18.16	2.25	14.85	15.36	15.73	16.64	18.12	19.58	20.48	21.12	22.20
80 years and over	253	18.46	2.35	14.96	15.51	16.09	16.99	18.38	19.69	20.58	20.93	21.85
20 years and over, age adjusted	3,930	17.42	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 59. Intertrochanter area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	12.92	2.22	9.52	10.27	10.62	11.28	12.76	14.35	15.11	15.53	16.48
12–15 years	227	15.79	2.00	13.05	13.40	13.95	14.38	15.52	17.14	17.99	18.43	19.12
16–19 years	186	15.98	2.08	13.07	13.44	13.55	14.37	15.76	17.29	18.47	19.07	19.59
20–29 years	148	16.22	2.16	12.75	13.67	14.02	14.70	16.14	17.40	18.03	18.64	20.71
30–39 years	137	16.17	1.79	13.41	14.03	14.46	15.14	16.00	16.94	18.12	18.53	19.29
40–49 years	133	16.48	1.98	14.19	14.37	14.47	15.18	16.26	17.48	17.99	18.45	19.62
50–59 years	97	*16.48	2.09	*13.69	*14.21	*14.39	*14.77	*16.13	*17.67	*18.59	*19.08	*19.71
60–69 years	130	*17.18	1.84	*14.53	*14.79	*15.32	*15.83	*16.90	*18.63	*19.32	*19.67	*19.91
70–79 years	49	*17.62	2.58	†	*14.52	*14.94	*15.51	*17.44	*19.40	*20.29	*20.60	†
80 years and over	12	*16.78	1.89	†	†	†	†	*16.81	*18.14	†	†	†
20 years and over, age adjusted	706	16.55	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	13.23	2.15	10.10	10.53	10.91	11.44	13.06	14.75	15.62	16.02	17.18
12–15 years	185	16.46	2.20	12.97	13.57	14.31	14.89	16.29	17.82	18.61	19.46	20.61
16–19 years	198	16.63	2.05	13.08	14.12	14.45	15.28	16.52	17.99	18.67	19.27	20.04
20–29 years	262	17.09	2.03	13.84	14.33	14.75	15.54	17.06	18.57	19.31	19.68	20.43
30–39 years	267	17.27	2.11	14.00	14.52	15.14	15.69	17.19	18.53	19.38	19.85	20.83
40–49 years	357	17.59	2.23	14.53	14.99	15.36	16.02	17.24	18.88	19.99	20.39	21.16
50–59 years	291	17.99	2.01	15.05	15.63	15.97	16.42	17.78	19.48	20.06	20.62	21.59
60–69 years	286	18.41	2.16	15.35	16.01	16.17	16.86	18.12	19.69	20.55	21.32	22.28
70–79 years	274	18.30	2.21	15.04	15.56	15.98	16.77	18.19	19.71	20.57	21.15	22.16
80 years and over	191	18.58	2.31	15.14	15.77	16.42	17.10	18.47	19.78	20.72	20.96	21.85
20 years and over, age adjusted	1,928	17.68	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	13.43	2.16	9.75	10.39	11.23	11.97	13.23	14.95	15.80	16.10	17.06
12–15 years	226	16.26	2.24	12.64	13.42	14.11	14.83	16.00	17.61	18.56	19.11	19.96
16–19 years	206	16.58	2.18	13.22	13.64	14.30	15.07	16.26	18.11	18.95	19.53	20.16
20–29 years	136	16.77	2.15	13.42	14.37	14.70	15.39	16.46	18.07	18.69	19.52	20.23
30–39 years	140	16.82	2.04	13.96	14.32	14.85	15.11	16.70	17.91	18.92	19.56	†
40–49 years	160	17.25	2.21	13.96	14.52	14.80	15.29	17.29	18.70	19.36	19.83	20.30
50–59 years	134	16.89	2.22	13.36	14.02	14.34	15.27	16.79	18.26	19.04	19.69	†
60–69 years	141	17.56	2.00	14.24	14.88	15.49	15.95	17.49	18.61	19.84	20.25	†
70–79 years	66	*17.84	2.21	*14.50	*15.10	*15.35	*16.21	*17.77	*18.97	*19.64	*20.52	*22.17
80 years and over	31	*18.72	2.75	†	*15.09	*16.01	*16.95	*18.40	*19.76	*20.73	†	†
20 years and over, age adjusted	808	17.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

† Standard error not calculated by SUDAAN.

Table 60. Ward's triangle area (cm²) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile 5th	10th	15th	25th	50th	75th	85th	90th	95th
Male												
All race and ethnicity:												
8–11 years	704	1.21	0.09	†	1.03	1.11	1.13	1.19	1.29	1.29	†	†
12–15 years	778	1.21	0.09	1.03	1.07	1.11	1.13	1.27	1.29	1.29	†	†
16–19 years	762	1.19	0.08	1.07	1.09	1.11	1.13	1.15	1.29	1.29	1.29	1.29
20–29 years	722	1.18	0.08	1.03	1.08	1.11	1.11	1.15	1.29	1.29	1.29	1.29
30–39 years	736	1.17	0.07	1.03	1.07	1.11	1.11	1.15	1.21	1.29	1.29	†
40–49 years	721	1.16	0.07	1.03	1.07	1.11	1.11	1.14	1.16	1.28	1.29	1.29
50–59 years	670	1.15	0.06	1.04	1.09	1.11	1.11	1.15	1.16	1.19	1.29	†
60–69 years	689	1.15	0.05	1.03	1.09	1.10	1.11	1.14	1.16	1.17	1.19	1.29
70–79 years	487	1.15	0.05	1.03	1.08	1.09	1.11	1.14	1.15	1.17	1.19	†
80 years and over	265	1.15	0.06	†	1.08	1.09	1.11	1.14	1.15	1.19	1.21	1.29
20 years and over, age adjusted	4,290	1.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Mexican American:												
8–11 years	206	1.21	0.08	†	1.07	1.12	1.14	1.18	†	†	†	†
12–15 years	232	1.21	0.09	†	1.03	1.10	1.11	1.27	†	†	†	†
16–19 years	212	1.20	0.09	†	†	1.10	1.11	1.16	†	†	†	†
20–29 years	200	1.17	0.08	†	1.03	1.08	1.11	1.15	1.29	†	†	†
30–39 years	153	1.17	0.08	†	1.04	1.09	1.11	1.15	1.29	†	†	†
40–49 years	154	1.16	0.07	1.03	1.08	1.09	1.11	1.15	1.17	†	†	†
50–59 years	111	1.15	0.06	†	1.08	1.10	1.11	1.15	1.16	1.19	1.22	†
60–69 years	118	1.14	0.06	†	1.03	1.08	1.10	1.15	1.16	1.17	†	†
70–79 years	47	*1.14	0.05	*1.05	*1.09	*1.09	*1.11	*1.14	*1.15	*1.17	†	†
80 years and over	14	*1.11	0.04	†	†	†	†	*1.10	*1.14	†	†	†
20 years and over, age adjusted	797	1.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	205	1.21	0.09	†	†	1.10	1.13	1.24	1.29	†	†	†
12–15 years	218	1.21	0.09	†	1.09	1.11	1.13	1.26	1.29	†	†	†
16–19 years	223	1.19	0.08	†	1.10	1.10	1.12	1.15	1.29	1.29	1.29	†
20–29 years	285	1.18	0.08	†	1.09	1.11	1.11	1.15	1.29	1.29	1.29	†
30–39 years	337	1.17	0.07	1.03	1.09	1.11	1.11	1.15	1.18	1.29	1.29	†
40–49 years	329	1.16	0.07	†	1.07	1.11	1.11	1.14	1.16	1.25	1.29	1.29
50–59 years	341	1.15	0.06	1.04	1.09	1.11	1.11	1.15	1.16	1.20	1.29	†
60–69 years	309	1.15	0.05	1.03	1.09	1.10	1.11	1.14	1.16	1.17	1.20	1.29
70–79 years	330	1.15	0.05	1.03	1.08	1.09	1.11	1.14	1.15	1.17	1.19	†
80 years and over	214	1.15	0.06	†	1.08	1.09	1.11	1.14	1.15	1.19	1.23	†
20 years and over, age adjusted	2,145	1.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	197	1.21	0.09	1.03	1.06	1.11	1.14	1.27	†	†	†	†
12–15 years	227	1.21	0.09	1.03	1.08	1.11	1.13	1.26	1.29	1.29	1.29	†
16–19 years	251	1.18	0.07	1.05	1.11	1.11	1.11	1.15	1.27	†	†	†
20–29 years	160	1.17	0.08	†	1.07	1.10	1.11	1.15	1.24	†	†	†
30–39 years	145	1.17	0.08	†	†	1.10	1.11	1.15	1.26	†	†	†
40–49 years	151	1.15	0.07	1.03	1.05	1.10	1.11	1.15	1.16	1.26	1.29	†
50–59 years	126	1.15	0.06	†	1.08	1.09	1.11	1.15	1.16	1.19	1.28	1.29
60–69 years	185	1.15	0.06	1.03	1.08	1.09	1.11	1.14	1.16	1.19	1.29	†
70–79 years	75	*1.15	0.06	†	†	*1.10	*1.11	*1.15	*1.15	*1.18	*1.21	*1.29
80 years and over	22	*1.14	0.05	†	†	*1.10	*1.11	*1.13	*1.15	†	†	†
20 years and over, age adjusted	864	1.16	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Female												
All race and ethnicity:												
8–11 years	741	1.18	0.08	†	1.03	1.09	1.13	1.15	1.29	1.29	1.29	†
12–15 years	715	1.22	0.09	†	1.04	1.11	1.13	1.28	1.29	1.29	1.29	†
16–19 years	673	1.21	0.09	1.03	1.06	1.11	1.13	1.25	1.29	1.29	†	†
20–29 years	635	1.22	0.09	1.03	1.10	1.11	1.13	1.28	1.29	1.29	†	†
30–39 years	639	1.20	0.09	†	1.03	1.09	1.13	1.19	1.29	1.29	1.29	†
40–49 years	750	1.18	0.09	†	1.03	1.08	1.11	1.15	1.29	1.29	1.29	†
50–59 years	595	1.17	0.08	†	1.04	1.09	1.11	1.15	1.28	1.29	1.29	†
60–69 years	633	1.16	0.07	†	1.03	1.09	1.11	1.15	1.16	1.29	1.29	1.29
70–79 years	425	1.16	0.07	†	1.07	1.09	1.11	1.15	1.16	1.21	†	†
80 years and over	253	1.14	0.06	†	†	†	1.11	1.15	1.16	1.17	1.21	1.29
20 years and over, age adjusted	3,930	1.18	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

See footnotes at end of table.

Table 60. Ward's triangle area (cm^2) of persons aged 8 years and over, by sex, race and ethnicity, and age: United States, 2005–2008—Con.

Sex, race and ethnicity, and age	Sample size	Mean	Standard deviation	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
Female—Con.												
Mexican American:												
8–11 years	234	1.19	0.08	1.03	1.05	1.10	1.12	1.15	†	†	†	†
12–15 years	227	1.23	0.09	†	1.05	1.12	1.15	1.29	†	†	†	†
16–19 years	186	1.22	0.09	†	1.03	1.07	1.14	1.29	†	†	†	†
20–29 years	148	1.22	0.09	†	1.03	1.08	1.15	1.29	†	†	†	†
30–39 years	137	1.20	0.10	†	†	1.03	1.11	1.23	†	†	†	†
40–49 years	133	1.18	0.10	†	†	1.03	1.09	1.15	†	†	†	†
50–59 years	97	*1.15	0.09	†	†	†	*1.03	*1.13	*1.26	*1.29	†	†
60–69 years	130	*1.15	0.07	†	†	*1.03	*1.10	*1.15	*1.16	*1.21	*1.24	†
70–79 years	49	*1.15	0.07	†	*1.06	*1.09	*1.10	*1.15	†	†	†	†
80 years and over	12	*1.15	0.06	†	†	†	†	†	†	†	†	†
20 years and over, age adjusted	706	1.18	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic white:												
8–11 years	199	1.18	0.08	†	1.03	1.08	1.13	1.15	1.29	†	†	†
12–15 years	185	1.22	0.09	†	†	†	1.13	1.28	1.29	1.29	†	†
16–19 years	198	1.20	0.09	†	1.06	1.10	1.12	1.19	1.29	1.29	1.29	†
20–29 years	262	1.22	0.09	1.03	1.11	1.11	1.13	1.26	1.29	1.29	†	†
30–39 years	267	1.20	0.09	†	†	1.11	1.13	1.19	1.29	1.29	†	†
40–49 years	357	1.18	0.09	†	†	1.09	1.11	1.15	1.29	1.29	1.29	†
50–59 years	291	1.17	0.08	†	†	1.10	1.11	1.15	1.26	1.29	1.29	†
60–69 years	286	1.16	0.07	†	1.03	1.09	1.11	1.15	1.16	1.29	1.29	1.29
70–79 years	274	1.16	0.07	†	1.08	1.10	1.11	1.15	1.16	1.22	1.25	†
80 years and over	191	1.15	0.06	†	†	†	1.11	1.15	1.16	1.19	1.24	†
20 years and over, age adjusted	1,928	1.19	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Non-Hispanic black:												
8–11 years	202	1.19	0.09	†	1.04	1.11	1.12	1.15	1.29	1.29	†	†
12–15 years	226	1.21	0.08	†	1.11	1.11	1.13	1.19	†	†	†	†
16–19 years	206	1.21	0.09	1.03	1.04	1.10	1.13	1.26	†	†	†	†
20–29 years	136	1.21	0.09	†	1.03	1.11	1.13	1.24	†	†	†	†
30–39 years	140	1.20	0.09	†	1.03	1.07	1.11	1.16	1.29	1.29	†	†
40–49 years	160	1.18	0.08	†	1.03	1.09	1.11	1.16	1.29	†	†	†
50–59 years	134	1.17	0.08	†	1.03	1.09	1.11	1.15	†	†	†	†
60–69 years	141	1.16	0.08	†	1.03	1.08	1.11	1.14	†	†	†	†
70–79 years	66	*1.14	0.06	†	†	†	*1.11	*1.13	*1.15	*1.16	†	†
80 years and over	31	*1.14	0.05	†	†	*1.06	*1.10	*1.15	*1.15	†	†	†
20 years and over, age adjusted	808	1.18	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

† Standard error not calculated by SUDAAN.

. . . Category not applicable.

* Figure does not meet standards of reliability or precision; relative standard error (standard error/estimate) is 30%–39% or estimate is based on less than 12 degrees of freedom.

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