Sitting Height to Standing Height Ratio Reference Charts for Children in the United States

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Objective To create reference charts for sitting height to standing height ratio (SitHt/Ht) for children in the US, and to describe the trajectory of SitHt/Ht during puberty.

Study design This was a cross-sectional study using data from the 1988-1994 National Health and Nutrition Examination Survey III, a strategic random sample of the US population. Comparison between non-Hispanic White (NHW), non-Hispanic Black (NHB) and Mexican American groups was performed by ANOVA to determine if a single population reference chart could be used. ANOVA was used to compare SitHt/Ht in pre-, early, and late puberty.

Results NHANES III recorded sitting height and standing height measurements in 9569 children aged 2-18 years of NHW (n = 2715), NHB (n = 3336), and Mexican American (n = 3518) ancestry. NHB children had lower SitHt/Ht than NHW and Mexican American children throughout childhood ($P < .001$). In both sexes, the SitHt/Ht decreased from prepuberty to early puberty and increased in late puberty. Sex-specific percentile charts of SitHt/Ht vs age were generated for NHB and for NHW and Mexican American youth combined.

Conclusions SitHt/Ht assessment can detect disproportionate short stature in children with skeletal dysplasia, but age-, sex-, and population-specific reference charts are required to interpret this measurement. NHB children in the US have significantly lower SitHt/Ht than other children, which adds complexity to interpretation. We recommend the use of standardized ancestry-specific reference charts in screening for skeletal dysplasias and have developed such charts in this study. *(J Pediatr 2020;226:221-7)*.

Faltering growth or short stature can be an early sign of genetic, systemic, or endocrine disease in children.[1] Growth concerns are one of the most common reasons for referral to a pediatric endocrinologist, although only a small proportion of referred children are found to have an endocrine disease.[2,3] However, new genetic causes of isolated short stature are being identified as our understanding of the genetic factors that regulate growth expands.[4,5] Many of these genetic variants predominantly affect the growth plate.[6,7]

Skeletal dysplasias can be associated with disproportionate short stature through growth attenuating effects on the long bones or on the vertebral bones. A child's sitting height to standing height ratio (SitHt/Ht) can be used to screen for these disorders by identifying disproportionate short stature.[8] More than 460 skeletal dysplasias have been described, and examples of those that can present with disproportionate short stature include short stature homeobox-containing gene defects, aggrecan mutations, hypochondroplasia, and achondroplasia.[8-12] Skeletal disproportion in these conditions can be subtle, leading to misdiagnosis of idiopathic short stature.[13] Some skeletal dysplasias can be associated with neurosurgical complications, including atlantoaxial instability and spinal stenosis.[14]

Numerous approaches to assess proportionality have been described, including SitHt/Ht, arm span to height ratio and upper to lower segment ratio. Arm span to height ratio assessment involves measuring arm span against a wall and calculating the ratio to standing height. Upper to lower segment ratio measurement involves measuring the distance between the pubic symphysis and the ground (lower segment) and subtracting this from the standing height to calculate the upper segment measurement.[15] Measurements of sitting height and height involve the use of a calibrated stadiometer, increasing the likelihood that this approach to assessing proportionality is more accurate.

There are age-related, pubertal, and population ancestry effects on SitHt/Ht that need to be considered in interpreting these measurements. In infancy, sitting height represents approximately two-thirds of an infant's length. In the prepubertal years, limb growth exceeds spinal growth leading to a sitting height closer to

MEC	Mobile examination center
NHANES	National Health and Nutrition Examination Surveys
NHB	Non-Hispanic black
NHW	Non-Hispanic white
SitHt/Ht	Sitting height to standing height ratio

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50% of standing height in adolescents.[8,16,17] Differences in proportionality are seen across European, African, and East Asian populations.[18,19] African American children tend to have proportionally longer legs and arms than European children, and European children have relatively longer legs than Japanese children.[19-21] There are also environmental effects on SitHt/Ht. Children who have been exposed to neglect or physical abuse have relatively shorter legs, and this metric improves with social intervention.[22] Secular trends seem to affect proportionality; as height increases in populations, there are greater increases in leg length compared with sitting height.[8,23,24]

Population-specific reference data are required to determine if a child's SitHt/Ht is outside of the typical range. A study of Dutch children has demonstrated that such reference data can be used to identify mild skeletal dysplasia.[8] Although sitting height measurement has been included in surveys from the National Health and Nutrition Examination Survey (NHANES), smoothed reference percentiles and visual growth charts for SitHt/Ht have not been developed for clinical use for children in the US.[25]

The aim of this study was therefore to develop SitHt/Ht charts for healthy children in the US, and to prepare these as a tool that can be integrated easily into the clinical evaluation of children with short stature. As a secondary aim, we sought to assess the effect of self-reported population ancestry and pubertal stage on SitHt/Ht in this population.

Methods

The NHANES are conducted periodically by the Centers for Disease Control and Prevention's National Center for Health Statistics (Hyattsville, MD). The most recent survey with available sitting height measurements was performed from 1988 to 1994 (NHANES III). In this study, we used data collected in the NHANES III survey to generate population-specific reference charts for children in the US. For participation in the NHANES III survey, parental consent was provided for all children <18 years of age and the protocol was approved by the National Center for Health Statistics Research Ethics Review Board.

Population

The NHANES III survey randomly selected participants from households in 81 counties in the US, with a goal of enrolling a representative sample of the US population.[26,27] The study design included an oversampling of young, non-Hispanic black (NHB) and Mexican American children and these are corrected for using weighted analysis, summarized below.[28] All children aged 2-18 years included in this NHANES III survey that had standing and sitting height measurements performed were included in this analysis.

Anthropometry

Anthropometric measurements were performed in the NHANES mobile examination center (MEC) that was equipped with a digital floor scale and a wall-mounted stadiometer. The stadiometer was calibrated using calibration rods at each new MEC stand, every 2 weeks, and at the end of each MEC stand. For height measurements, the participant stood on the floor-board of the stadiometer with both heels together. Heels, buttocks, and scapulae were touching the vertical backboard. The participant's arms were allowed to hang freely by their side, with palms facing thighs. The head was in the Frankfurt horizontal plane.

To measure sitting height, the participant sat on a measurement box with their back and buttocks touching the

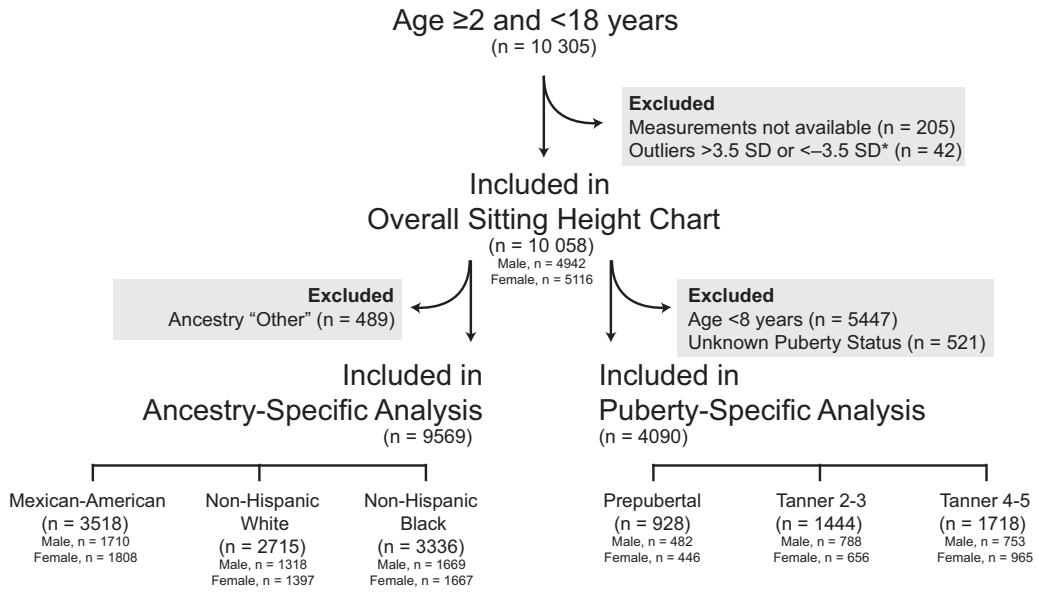

Figure 1. Consort diagram demonstrating participants aged 2-18 years included in centile chart production and analyses.

backboard of the stadiometer, knees directed straight ahead, arms and hands resting at their side, and head in the Frankfort horizontal plane.[29] Leg length was calculated by subtracting sitting height from standing height.

If permission was given, a board-eligible physician assessed pubertal stage in participants aged 8-18 years. Pubertal stage was assigned according to male genitalia or female breast.[30] Ancestry was self-reported.

SitHt/Ht Chart Development

The SitHt/Ht was calculated for all participants. Children with physiologically improbable measurements were excluded from the sample as follows. A third-degree polynomial regression of SitHt/Ht against age, with an age/sex interaction was performed. Polynomial age terms were included to adjust for the non-linear relationship with age. Standardized residuals were calculated and participants with residuals ≥3.5 or <–3.5 SD from the mean were removed.

The NHANES used a strategic random sampling strategy and assigned sample weights to data from each participant. The weighting assigned to all participants who underwent MEC assessment (designated WTPFEX6 in the NHANES dataset) was used in generating population-specific reference charts representative of the entire US population, as

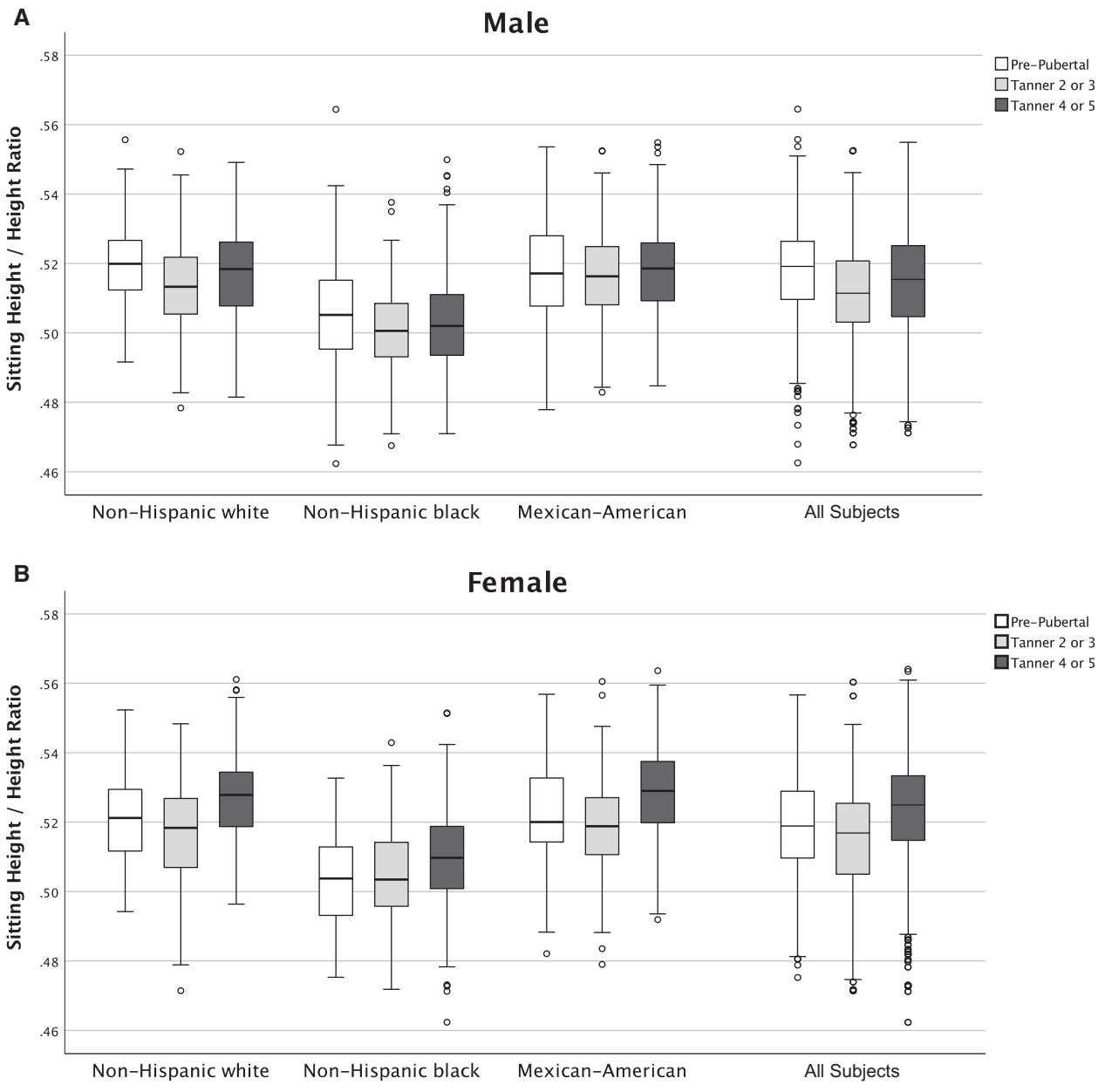

Figure 2. SitHt/Ht in prepuberty, early puberty (Tanner 2 or 3) or late puberty (Tanner 4 or 5) in male and female children aged ≥8 years. There is relative increase in lower limb growth in early puberty followed by a relative increase in spinal growth in later puberty. This pattern is seen in both males and females and is statistically significant ($P < .001$).

described elsewhere.[28,31] All analyses included these sample weights and were performed separately for each imputation.[26] Sex-specific reference curves for SitHt/Ht were generated using LMS Chartmaker Pro (Harlow Printing Ltd., Tyne and Wear, UK). The LMS method uses a Box-Cox transformation to obtain normality, and separate smooth curves are generated for skewness, median, and variability.[32] These are constrained to smooth changes over time and combined in one graph. As per software recommendations, these were adjusted until the fit of the curve was visually optimized.

Statistical Analyses

Using the weighted NHANES data, a population-specific growth chart was generated and SitHt/Ht Z-scores were calculated for each participant. Comparisons of SitHt/Ht Z-scores across ancestries on a single-population centile chart and of absolute values for SitHt/Ht between ancestries and pubertal stages were performed using ANOVA. The Scheffe test was used for post-hoc comparisons between groups. Statistical analyses were performed using Stata SE 14.0 (StataCorp LLC, College Station, Texas) and SPSS 25.0 (IBM, New York, New York).

Results

Of the 31 311 participants included in NHANES III, 10,305 were between 2 and 18 years of age. There were 205 excluded for missing a sitting or standing height measurement, and 42 were excluded as outliers. An additional were 489 excluded from ancestry analyses due to having ancestries other than non-Hispanic white (NHW), NHB and Mexican American. Of the remaining 9569 children, 2715 were of NHW, 3336 of NHB, and 3518 of Mexican American ancestry (**Figure 1**).

Among the 4090 participants with assessed pubertal status, 928 were prepubertal, 1444 were Tanner stage 2-3, and 1718 were Tanner stage 4-5. For all ages, puberty stage and sex groups, SitHt/Ht were lower in male and female NHB children compared with NHW or Mexican American children (**Table I**; available at www.jpeds.com). Across the entire population in both sexes, SitHt/Ht was higher among prepubertal (Tanner stage 1) participants compared with those in early puberty (Tanner stage 2-3) ($P < .001$), indicating that there is more long bone than spinal growth in early puberty. The opposite is true in later puberty, as SitHt/Ht were greater among later pubertal (Tanner stage 4-5) participants were compared with those in early puberty (Tanner stages 2-3) ($P < .001$). This same pattern was seen when NHW, NHB, and Mexican American children were analyzed separately (**Table I** and **Figure 2**).

The distribution of SitHt/Ht in NHB children was lower than that of NHW and Mexican American children throughout childhood (**Figure 3**, A and B). Sex-specific references ranges and corresponding growth charts for SitHt/Ht relative to age were created using the entire cohort with weighted representation of ancestries to reflect the US Population (**Figure 5**; available at www.jpeds.com). Z-scores calculated from these sex-specific reference charts showed that the mean ± SD Z-score was lowest in NHB (−0.6 ± 0.9 males, −0.64 ± 0.9 females) when compared with NHW (0.29 ± 0.9 males, 0.34 ± 0.9 females) ($P < .001$) and with Mexican American (0.32 ± 0.9 males, 0.31 ± 0.9 females) children ($P < .001$) (**Figure 3**, C). When Z-scores were compared between NHW and Mexican American children, the difference between these groups was not statistically significant using this approach ($P = .1$).

Given this marked difference in body proportion in children of NHB ancestry, separate sex-specific SitHt/Ht smoothed centile charts were created for NHB and for the combined sample of NHW and Mexican American children (**Figure 4**). Detailed LMS data are presented for these charts in **Tables II-VI** (available at www.jpeds.com).

Discussion

We have generated sex-specific sitting height reference charts for children in the US, and described significant differences in SitHt/Ht between NHB and NHW or Mexican American children in the US. These differences present challenges in developing an ancestry-agnostic SitHt/Ht chart to identify children

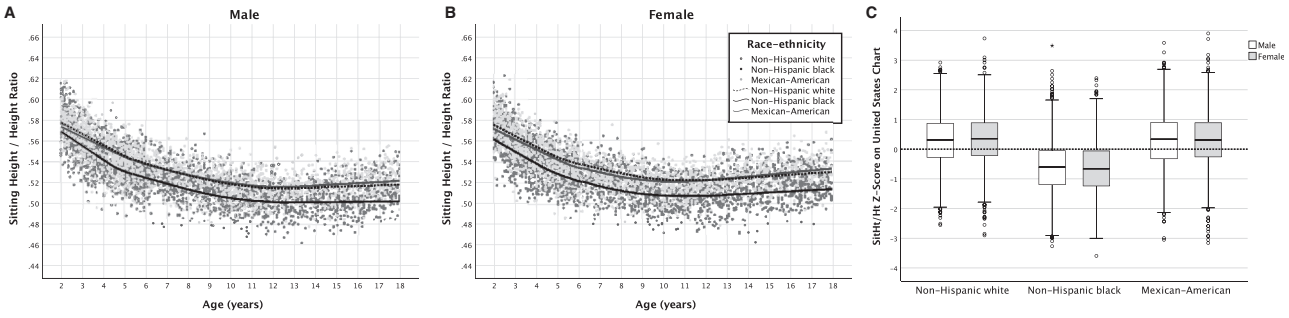

Figure 3. **A** and **B,** Scatterplot demonstrating lower SitHt/Ht in NHB children throughout childhood when compared with NHW and Mexican American children. **C,** Distribution of Z-scores in each ancestry when a single centile chart for the entire US population is used to calculate SitHt/Ht Z-scores. **C,** NHB children will have SitHt/Ht z-scores of approximately −0.6, whereas NHW and Mexican American children will have an average z-score of +0.3.

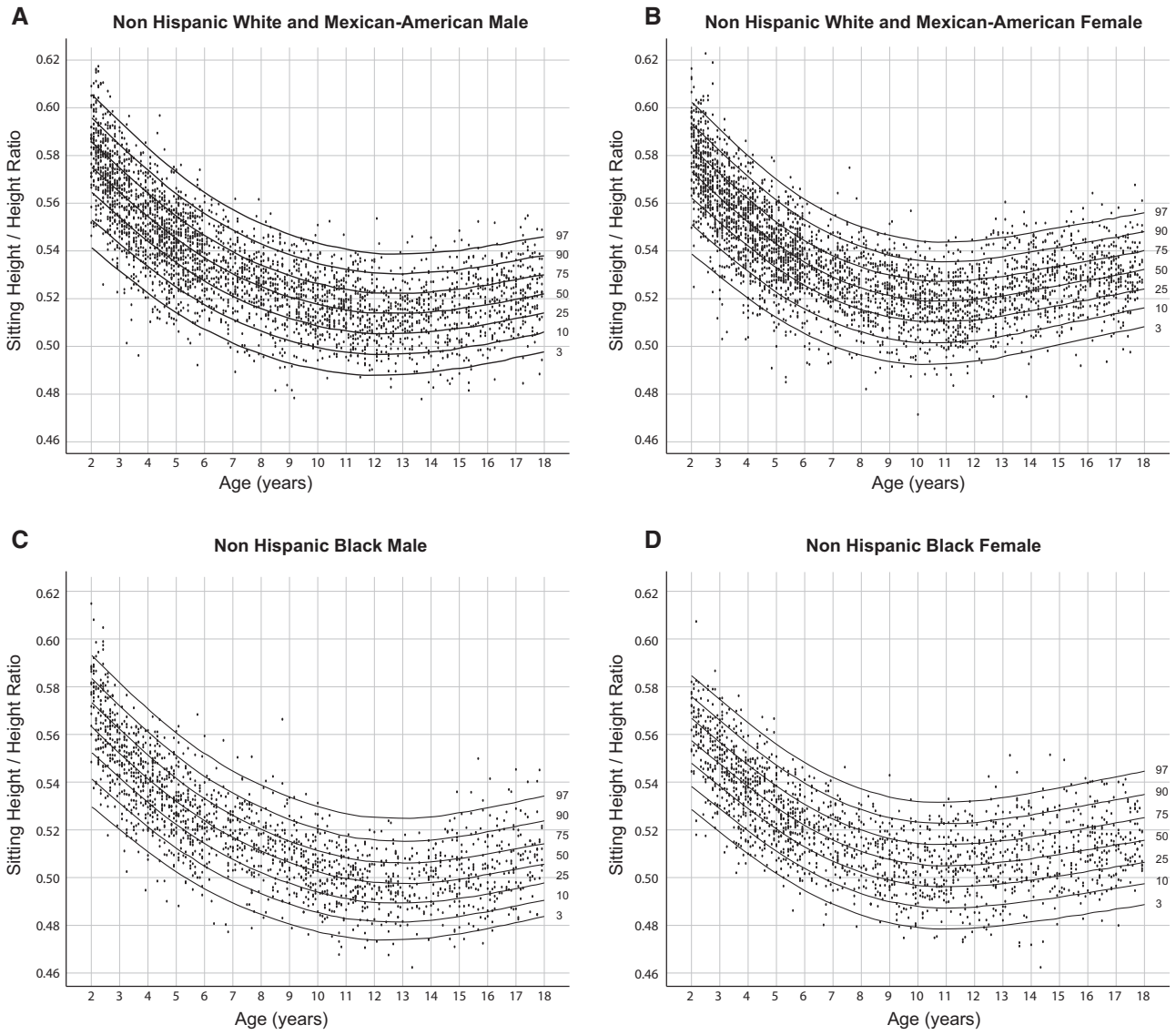

Figure 4. Ancestry and sex-specific SitHt/Ht charts for NHW, NHB, and Mexican American youth in the US.

with disproportionate growth across the predominant ancestry groups in the US. We have created separate SitHt/Ht charts for NHB and for NHW and Mexican American children. In addition, we have described the pattern of early and late pubertal long bone and spinal growth in male and female children.

Although sex-specific reference charts for all ancestry groups in the US would be more convenient for clinical use, we have demonstrated that this approach would lead to a substantial difference of approximately 0.9 Z-scores between mean SitHt/Ht measurements of NHB children when compared with NHW or Mexican American children. This difference could result in the misdiagnosis of disproportion, especially in NHB children. Therefore, we developed ancestry-specific reference charts for this measure, an approach used by other studies describing reference data for characteristics that differ across ancestries.[33] Our observation of lower SitHt/Ht in NHB children is consistent with prior studies of NHB and NHW children in Philadelphia by Krogman et al and in Washington, DC, by Verghese et al in the early 1970s.[34,35] In fact, NHB children living in the US have relatively longer legs even when compared with NHB children in Nigeria and in Tanzania.[19,34,35] NHB children have a faster tempo of linear growth in childhood, which may also contribute to ethnic differences in proportion.[36] Thus, it is not surprising that a separate SitHt/Ht chart is required for clinical use. Furthermore, the data in this study differ from previously reported reference data in other populations. Turkish children generally have higher mean SitHt/Ht than the NHW, Mexican American, and NHB children in the US, and Sit/Ht ratios in Dutch children are closer to those

of the NHW and Mexican American children in this study.[8,37] These population differences reinforce the need to generate population-specific reference charts for this measure.

Currently, children identified as having short stature are assessed for medical etiologies, including celiac disease and thyroid dysfunction, and these tests have an extremely low diagnostic yield in asymptomatic children.[2] Although skeletal dysplasias can result in marked disproportion detected on routine clinical examination, skeletal dysplasias may be more subtle in some children. These children may be misdiagnosed as having idiopathic short stature or small for gestational age, and may even be treated with growth hormone under these indications.[13] In some cases, children with mild skeletal dysplasia could have avoided unnecessary testing and been diagnosed more efficiently if disproportionate short stature was identified early through SitHt/Ht measurement.[2,5,8] The American College of Medical Genetics recommends performing a skeletal survey in children with disproportionate short stature, and accurate determination of disproportion will ensure that the radiation exposure associated with this study is limited to those where it is clinically indicated.[38] Current pediatric practice does not routinely include SitHt/Ht measurement, but the reference charts developed in this study make such practice both feasible and clinically relevant. In addition, these charts may have a role in characterizing the effects of adverse environmental and nutritional conditions on childhood growth.

Early and late puberty can also affect SitHt/Ht, and this factor should be considered when interpreting the ratio in adolescents. Children with delayed puberty can have a lower SitHt/Ht than would be expected for age on these growth charts.[39,40] In this study, we have further characterized the difference in proportionate growth in early and late puberty. In both males and females, lower limb growth exceeds trunk growth in early puberty and the opposite pattern is seen in later puberty.

The strengths of this study include the large sample size and the use of sample weights to provide data that represent the US pediatric population. However, it should be noted that these data are from measurements of children between 1988 and 1994. Unfortunately, more recent data are not available, because NHANES did not measure sitting height in subsequent surveys. Although we have not validated these charts as a screening tool for skeletal dysplasia, a similar approach in the Netherlands has demonstrated that children with mild hypochondroplasia can be identified with population-specific reference charts.[8] SitHt/Ht assessment has also been described previously as a screening tool to identify children for short stature homeobox-containing haploinsufficiency testing.[10,41] Further study will be required to determine the diagnostic accuracy of this screening tool and describe how the predictive value of this test changes as the magnitude of a child's SitHt/Ht difference from the population mean increases.

The SitHt/Ht can be useful in screening for disproportionate growth and may play a role in guiding the diagnosis and management of children with short stature. In the US, male and female NHB children have significantly lower SitHt/Ht at all ages and this must be considered in interpreting measurements in children of different ancestries. We suggest the use of these standardized reference charts in screening for disproportionate growth and in considering whether a diagnosis of skeletal dysplasia should be considered in children with short stature or faltering growth. ■

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Data Statement

Data sharing statement available at www.jpeds.com.

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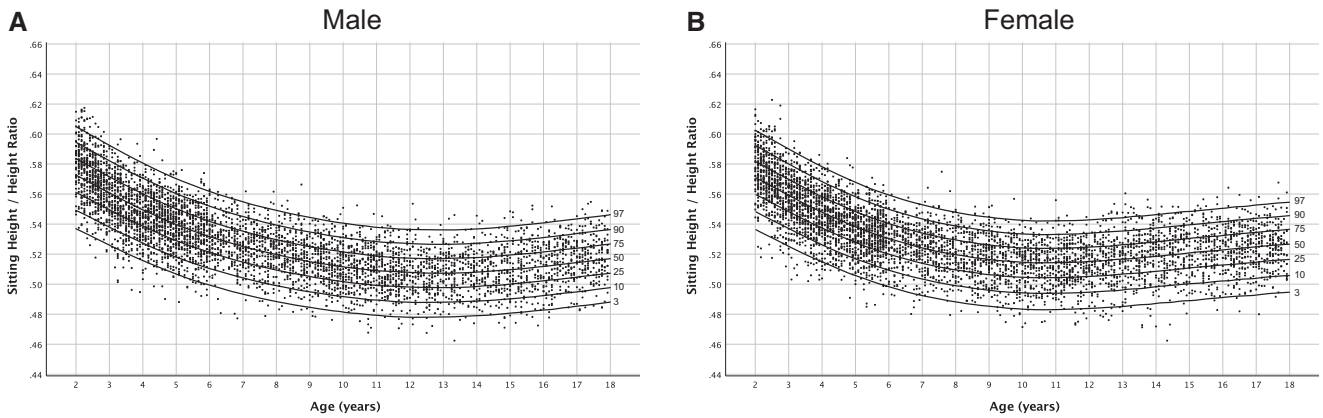

Figure 5. Ancestry-agnostic SitHt/Ht centile charts for all male and female children in the US. This was generated using weighted representations of ethnicities, to reflect the distribution of the US population. Note that NHB children with have an average z-score of −0.6, and NHW and Mexican American children will have an average z-score of +0.3 using this chart.

Table I. Mean (SD) SitHt/Ht according to sex and population ancestry

Characteristics	NHW	NHB	Mexican American
Males			
<8 years			
Height (cm)	109.5 (13.3)	109.9 (13.3)	108 (12.4)
Sitting height (cm)	59.5 (5.7)	58.5 (5.6)	58.8 (5.3)
Leg length (cm)	50 (8)	51.4 (8.1)	49.2 (7.5)
SitHt/Ht	0.546 (0.022)	0.534 (0.022)	0.547 (0.022)
≥8 years			
Tanner 1			
Height (cm)	138.5 (9)	140.5 (9.6)	137.5 (8.1)
Sitting height (cm)	71.9 (4.5)	71 (4.2)	71.1 (4)
Leg length (cm)	66.6 (5)	69.5 (6.1)	66.4 (4.9)
SitHt/Ht	0.520 (0.012)	0.506 (0.015)	0.518 (0.014)
Tanner 2-3			
Height (cm)	149.4 (12.3)	147.1 (11.4)	147.3 (11.1)
Sitting height (cm)	76.8 (5.9)	73.6 (5.3)	76.1 (5.9)
Leg length (cm)	72.6 (6.8)	73.5 (6.5)	71.3 (5.8)
SitHt/Ht	0.514 (0.012)	0.500 (0.012)	0.516 (0.013)
Tanner 4-5			
Height (cm)	173.5 (8.3)	171.3 (8.1)	168.5 (7.5)
Sitting height (cm)	89.7 (4.8)	86.1 (4.2)	87.2 (4.2)
Leg length (cm)	83.8 (4.7)	85.2 (5)	81.3 (4.6)
SitHt/Ht	0.517 (0.012)	0.503 (0.014)	0.518 (0.013)
Females			
<8 years			
Height (cm)	108.2 (13)	110 (13.5)	107.1 (12.8)
Sitting height (cm)	58.9 (5.8)	58.2 (5.8)	58.1 (5.4)
Leg length (cm)	49.3 (7.6)	51.8 (8)	49 (7.7)
SitHt/Ht	0.546 (0.02)	0.531 (0.02)	0.544 (0.022)
≥8 years			
Tanner 1			
Height (cm)	135.3 (7.7)	136.3 (6.9)	135.5 (8.2)
Sitting height (cm)	70.4 (4)	68.7 (3.7)	70.7 (4.7)
Leg length (cm)	64.8 (4.4)	67.6 (4.1)	64.8 (4.2)
SitHt/Ht	0.521 (0.013)	0.504 (0.013)	0.521 (0.013)
Tanner 2-3			
Height (cm)	151.3 (10)	149.9 (10.6)	148.5 (9.8)
Sitting height (cm)	78.3 (5.4)	75.6 (5.5)	77.1 (5.5)
Leg length (cm)	73 (4.9)	74.3 (5.9)	71.4 (5)
SitHt/Ht	0.517 (0.012)	0.504 (0.014)	0.519 (0.013)
Tanner 4-5			
Height (cm)	162.4 (7)	161.1 (7.4)	157.5 (5.8)
Sitting height (cm)	85.7 (3.8)	82.1 (3.8)	83.3 (3.3)
Leg length (cm)	76.7 (4.2)	79 (4.8)	74.3 (3.7)
SitHt/Ht	0.528 (0.012)	0.510 (0.014)	0.528 (0.012)

All comparisons (NHW vs NHB; NHB vs Mexican American; and NHW vs Mexican American) were statistically significant with a *P* value of <.001.

Table II. Mean (SD) sitting height to height ratio in NHW/Mexican American or in NHB children

	NHW or Mexican American		NHB	
Age, years	Male	Female	Male	Female
2	0.575 (0.016)	0.573 (0.015)	0.563 (0.016)	0.557 (0.015)
2.5	0.569 (0.016)	0.568 (0.015)	0.558 (0.016)	0.552 (0.014)
3	0.564 (0.016)	0.562 (0.015)	0.552 (0.016)	0.547 (0.014)
3.5	0.559 (0.015)	0.557 (0.015)	0.547 (0.016)	0.542 (0.014)
4	0.554 (0.015)	0.552 (0.015)	0.542 (0.015)	0.538 (0.014)
4.5	0.549 (0.015)	0.547 (0.014)	0.537 (0.015)	0.533 (0.014)
5	0.545 (0.015)	0.543 (0.014)	0.532 (0.015)	0.529 (0.014)
5.5	0.540 (0.015)	0.539 (0.014)	0.528 (0.015)	0.525 (0.014)
6	0.537 (0.015)	0.535 (0.014)	0.524 (0.015)	0.521 (0.014)
6.5	0.533 (0.014)	0.532 (0.014)	0.520 (0.015)	0.518 (0.014)
7	0.530 (0.014)	0.529 (0.014)	0.517 (0.015)	0.515 (0.014)
7.5	0.527 (0.014)	0.527 (0.014)	0.514 (0.015)	0.513 (0.014)
8	0.525 (0.014)	0.525 (0.014)	0.511 (0.015)	0.511 (0.014)
8.5	0.523 (0.014)	0.523 (0.013)	0.509 (0.015)	0.509 (0.014)
9	0.521 (0.014)	0.521 (0.013)	0.507 (0.015)	0.507 (0.014)
9.5	0.519 (0.014)	0.520 (0.013)	0.505 (0.015)	0.506 (0.014)
10	0.517 (0.014)	0.520 (0.013)	0.503 (0.014)	0.505 (0.014)
10.5	0.516 (0.013)	0.519 (0.013)	0.501 (0.014)	0.505 (0.014)
11	0.515 (0.013)	0.519 (0.013)	0.500 (0.014)	0.505 (0.014)
11.5	0.515 (0.013)	0.520 (0.013)	0.499 (0.014)	0.505 (0.014)
12	0.514 (0.013)	0.520 (0.013)	0.498 (0.014)	0.505 (0.014)
12.5	0.514 (0.013)	0.521 (0.013)	0.498 (0.014)	0.506 (0.014)
13	0.514 (0.013)	0.522 (0.013)	0.498 (0.015)	0.506 (0.015)
13.5	0.514 (0.013)	0.523 (0.013)	0.498 (0.015)	0.507 (0.015)
14	0.515 (0.013)	0.524 (0.013)	0.499 (0.015)	0.508 (0.015)
14.5	0.515 (0.013)	0.525 (0.013)	0.499 (0.015)	0.509 (0.015)
15	0.516 (0.013)	0.526 (0.013)	0.500 (0.015)	0.510 (0.015)
15.5	0.517 (0.013)	0.527 (0.013)	0.501 (0.015)	0.511 (0.015)
16	0.518 (0.013)	0.528 (0.013)	0.502 (0.015)	0.512 (0.015)
16.5	0.519 (0.013)	0.529 (0.013)	0.503 (0.015)	0.513 (0.015)
17	0.520 (0.013)	0.530 (0.013)	0.504 (0.015)	0.514 (0.015)
17.5	0.521 (0.013)	0.531 (0.013)	0.505 (0.015)	0.515 (0.015)
18	0.522 (0.013)	0.532 (0.013)	0.506 (0.015)	0.515 (0.015)

Table III. NHW or Mexican American Boys

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
2	3.0994	0.5748	0.0277	0.5409	0.5527	0.5640	0.5748	0.5852	0.5952	0.6049
2.1	3.0872	0.5737	0.0276	0.5400	0.5517	0.5629	0.5737	0.5841	0.5941	0.6038
2.2	3.0750	0.5726	0.0276	0.5390	0.5507	0.5619	0.5726	0.5830	0.5930	0.6026
2.3	3.0628	0.5715	0.0276	0.5380	0.5497	0.5608	0.5715	0.5819	0.5918	0.6014
2.4	3.0506	0.5705	0.0276	0.5371	0.5487	0.5598	0.5705	0.5808	0.5907	0.6003
2.5	3.0384	0.5694	0.0275	0.5361	0.5476	0.5587	0.5694	0.5796	0.5895	0.5991
2.6	3.0262	0.5683	0.0275	0.5351	0.5466	0.5577	0.5683	0.5785	0.5884	0.5980
2.7	3.0140	0.5672	0.0275	0.5341	0.5456	0.5566	0.5672	0.5774	0.5873	0.5968
2.8	3.0018	0.5661	0.0274	0.5332	0.5446	0.5556	0.5661	0.5763	0.5861	0.5957
2.9	2.9896	0.5651	0.0274	0.5322	0.5436	0.5546	0.5651	0.5752	0.5850	0.5945
3	2.9774	0.5640	0.0274	0.5313	0.5426	0.5535	0.5640	0.5741	0.5839	0.5934
3.1	2.9652	0.5629	0.0274	0.5303	0.5416	0.5525	0.5629	0.5730	0.5828	0.5922
3.2	2.9530	0.5619	0.0273	0.5294	0.5406	0.5515	0.5619	0.5719	0.5817	0.5911
3.3	2.9408	0.5608	0.0273	0.5284	0.5397	0.5504	0.5608	0.5709	0.5806	0.5900
3.4	2.9286	0.5598	0.0273	0.5275	0.5387	0.5494	0.5598	0.5698	0.5795	0.5888
3.5	2.9164	0.5588	0.0272	0.5266	0.5377	0.5484	0.5588	0.5687	0.5784	0.5877
3.6	2.9042	0.5577	0.0272	0.5257	0.5368	0.5474	0.5577	0.5677	0.5773	0.5866
3.7	2.8920	0.5567	0.0272	0.5247	0.5358	0.5465	0.5567	0.5666	0.5762	0.5856
3.8	2.8798	0.5557	0.0272	0.5238	0.5349	0.5455	0.5557	0.5656	0.5752	0.5845
3.9	2.8676	0.5547	0.0271	0.5230	0.5339	0.5445	0.5547	0.5646	0.5741	0.5834
4	2.8554	0.5537	0.0271	0.5221	0.5330	0.5436	0.5537	0.5636	0.5731	0.5823
4.1	2.8432	0.5528	0.0271	0.5212	0.5321	0.5426	0.5528	0.5626	0.5721	0.5813
4.2	2.8310	0.5518	0.0270	0.5203	0.5312	0.5417	0.5518	0.5616	0.5711	0.5803
4.3	2.8188	0.5508	0.0270	0.5195	0.5303	0.5408	0.5508	0.5606	0.5701	0.5792
4.4	2.8066	0.5499	0.0270	0.5186	0.5294	0.5398	0.5499	0.5596	0.5691	0.5782
4.5	2.7944	0.5490	0.0269	0.5178	0.5286	0.5389	0.5490	0.5587	0.5681	0.5772
4.6	2.7822	0.5481	0.0269	0.5170	0.5277	0.5381	0.5481	0.5577	0.5671	0.5763
4.7	2.7700	0.5472	0.0269	0.5162	0.5269	0.5372	0.5472	0.5568	0.5662	0.5753
4.8	2.7578	0.5463	0.0269	0.5154	0.5260	0.5363	0.5463	0.5559	0.5652	0.5743
4.9	2.7456	0.5454	0.0268	0.5146	0.5252	0.5355	0.5454	0.5550	0.5643	0.5734
5	2.7334	0.5445	0.0268	0.5139	0.5244	0.5346	0.5445	0.5541	0.5634	0.5725
5.1	2.7212	0.5437	0.0268	0.5131	0.5236	0.5338	0.5437	0.5532	0.5625	0.5715
5.2	2.7090	0.5428	0.0267	0.5124	0.5229	0.5330	0.5428	0.5524	0.5616	0.5706
5.3	2.6969	0.5420	0.0267	0.5116	0.5221	0.5322	0.5420	0.5515	0.5608	0.5698
5.4	2.6847	0.5412	0.0267	0.5109	0.5213	0.5314	0.5412	0.5507	0.5599	0.5689
5.5	2.6725	0.5404	0.0267	0.5102	0.5206	0.5307	0.5404	0.5499	0.5591	0.5680
5.6	2.6603	0.5396	0.0266	0.5095	0.5199	0.5299	0.5396	0.5491	0.5583	0.5672
5.7	2.6481	0.5389	0.0266	0.5088	0.5192	0.5292	0.5389	0.5483	0.5575	0.5664
5.8	2.6359	0.5381	0.0266	0.5082	0.5185	0.5284	0.5381	0.5475	0.5567	0.5656
5.9	2.6237	0.5374	0.0265	0.5075	0.5178	0.5277	0.5374	0.5468	0.5559	0.5648
6	2.6115	0.5367	0.0265	0.5069	0.5171	0.5270	0.5367	0.5460	0.5551	0.5640
6.1	2.5993	0.5359	0.0265	0.5063	0.5165	0.5263	0.5359	0.5453	0.5544	0.5632
6.2	2.5871	0.5352	0.0265	0.5056	0.5158	0.5257	0.5352	0.5446	0.5536	0.5625
6.3	2.5749	0.5346	0.0264	0.5050	0.5152	0.5250	0.5346	0.5438	0.5529	0.5617
6.4	2.5627	0.5339	0.0264	0.5044	0.5146	0.5244	0.5339	0.5432	0.5522	0.5610
6.5	2.5505	0.5332	0.0264	0.5039	0.5139	0.5237	0.5332	0.5425	0.5515	0.5603
6.6	2.5383	0.5326	0.0263	0.5033	0.5133	0.5231	0.5326	0.5418	0.5508	0.5596
6.7	2.5261	0.5319	0.0263	0.5027	0.5128	0.5225	0.5319	0.5411	0.5501	0.5589
6.8	2.5139	0.5313	0.0263	0.5022	0.5122	0.5219	0.5313	0.5405	0.5495	0.5582
6.9	2.5017	0.5307	0.0262	0.5017	0.5116	0.5213	0.5307	0.5399	0.5488	0.5575
7	2.4895	0.5301	0.0262	0.5011	0.5111	0.5207	0.5301	0.5393	0.5482	0.5569
7.1	2.4773	0.5295	0.0262	0.5006	0.5105	0.5202	0.5295	0.5387	0.5476	0.5563
7.2	2.4651	0.5290	0.0262	0.5001	0.5100	0.5196	0.5290	0.5381	0.5470	0.5556
7.3	2.4529	0.5284	0.0261	0.4996	0.5095	0.5191	0.5284	0.5375	0.5464	0.5550
7.4	2.4407	0.5278	0.0261	0.4992	0.5090	0.5185	0.5278	0.5369	0.5458	0.5544
7.5	2.4285	0.5273	0.0261	0.4987	0.5085	0.5180	0.5273	0.5364	0.5452	0.5538
7.6	2.4163	0.5268	0.0260	0.4983	0.5080	0.5175	0.5268	0.5358	0.5446	0.5533
7.7	2.4041	0.5263	0.0260	0.4978	0.5075	0.5170	0.5263	0.5353	0.5441	0.5527
7.8	2.3919	0.5258	0.0260	0.4974	0.5071	0.5165	0.5258	0.5348	0.5436	0.5522
7.9	2.3797	0.5253	0.0260	0.4970	0.5066	0.5161	0.5253	0.5343	0.5430	0.5516
8	2.3675	0.5248	0.0259	0.4965	0.5062	0.5156	0.5248	0.5338	0.5425	0.5511
8.1	2.3553	0.5243	0.0259	0.4961	0.5058	0.5152	0.5243	0.5333	0.5420	0.5506
8.2	2.3431	0.5239	0.0259	0.4958	0.5054	0.5147	0.5239	0.5328	0.5415	0.5501
8.3	2.3309	0.5234	0.0258	0.4954	0.5050	0.5143	0.5234	0.5323	0.5411	0.5496
8.4	2.3187	0.5230	0.0258	0.4950	0.5046	0.5139	0.5230	0.5319	0.5406	0.5491
8.5	2.3065	0.5226	0.0258	0.4946	0.5042	0.5135	0.5226	0.5314	0.5401	0.5487
8.6	2.2943	0.5221	0.0258	0.4943	0.5038	0.5131	0.5221	0.5310	0.5397	0.5482
8.7	2.2821	0.5217	0.0257	0.4940	0.5034	0.5127	0.5217	0.5306	0.5393	0.5478

(*continued*)

Table III. Continued

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
8.8	2.2699	0.5214	0.0257	0.4936	0.5031	0.5123	0.5214	0.5302	0.5388	0.5473
8.9	2.2577	0.5210	0.0257	0.4933	0.5027	0.5120	0.5210	0.5298	0.5384	0.5469
9	2.2455	0.5206	0.0256	0.4930	0.5024	0.5116	0.5206	0.5294	0.5380	0.5465
9.1	2.2333	0.5202	0.0256	0.4927	0.5021	0.5113	0.5202	0.5290	0.5376	0.5461
9.2	2.2211	0.5199	0.0256	0.4924	0.5018	0.5109	0.5199	0.5287	0.5373	0.5457
9.3	2.2089	0.5195	0.0255	0.4921	0.5015	0.5106	0.5195	0.5283	0.5369	0.5453
9.4	2.1967	0.5192	0.0255	0.4919	0.5012	0.5103	0.5192	0.5280	0.5365	0.5450
9.5	2.1846	0.5189	0.0255	0.4916	0.5009	0.5100	0.5189	0.5276	0.5362	0.5446
9.6	2.1724	0.5186	0.0255	0.4913	0.5006	0.5097	0.5186	0.5273	0.5359	0.5443
9.7	2.1602	0.5183	0.0254	0.4911	0.5004	0.5094	0.5183	0.5270	0.5355	0.5439
9.8	2.1480	0.5180	0.0254	0.4909	0.5001	0.5091	0.5180	0.5267	0.5352	0.5436
9.9	2.1358	0.5177	0.0254	0.4906	0.4999	0.5089	0.5177	0.5264	0.5349	0.5433
10	2.1236	0.5175	0.0253	0.4904	0.4996	0.5086	0.5175	0.5261	0.5346	0.5430
10.1	2.1114	0.5172	0.0253	0.4902	0.4994	0.5084	0.5172	0.5258	0.5343	0.5427
10.2	2.0992	0.5169	0.0253	0.4900	0.4992	0.5081	0.5169	0.5256	0.5341	0.5424
10.3	2.0870	0.5167	0.0253	0.4898	0.4990	0.5079	0.5167	0.5253	0.5338	0.5421
10.4	2.0748	0.5165	0.0252	0.4897	0.4988	0.5077	0.5165	0.5251	0.5335	0.5419
10.5	2.0626	0.5162	0.0252	0.4895	0.4986	0.5075	0.5162	0.5248	0.5333	0.5416
10.6	2.0504	0.5160	0.0252	0.4893	0.4984	0.5073	0.5160	0.5246	0.5331	0.5414
10.7	2.0382	0.5158	0.0251	0.4892	0.4982	0.5071	0.5158	0.5244	0.5328	0.5411
10.8	2.0260	0.5156	0.0251	0.4890	0.4981	0.5069	0.5156	0.5242	0.5326	0.5409
10.9	2.0138	0.5155	0.0251	0.4889	0.4979	0.5068	0.5155	0.5240	0.5324	0.5407
11	2.0016	0.5153	0.0251	0.4888	0.4978	0.5066	0.5153	0.5238	0.5322	0.5405
11.1	1.9894	0.5151	0.0250	0.4887	0.4976	0.5065	0.5151	0.5237	0.5320	0.5403
11.2	1.9772	0.5150	0.0250	0.4886	0.4975	0.5063	0.5150	0.5235	0.5319	0.5401
11.3	1.9650	0.5148	0.0250	0.4885	0.4974	0.5062	0.5148	0.5233	0.5317	0.5399
11.4	1.9528	0.5147	0.0249	0.4884	0.4973	0.5061	0.5147	0.5232	0.5316	0.5398
11.5	1.9406	0.5146	0.0249	0.4883	0.4972	0.5060	0.5146	0.5231	0.5314	0.5396
11.6	1.9284	0.5145	0.0249	0.4882	0.4971	0.5059	0.5145	0.5229	0.5313	0.5395
11.7	1.9162	0.5144	0.0248	0.4882	0.4971	0.5058	0.5144	0.5228	0.5312	0.5394
11.8	1.9040	0.5143	0.0248	0.4881	0.4970	0.5057	0.5143	0.5227	0.5310	0.5392
11.9	1.8918	0.5142	0.0248	0.4881	0.4969	0.5056	0.5142	0.5226	0.5309	0.5391
12	1.8796	0.5141	0.0248	0.4881	0.4969	0.5056	0.5141	0.5225	0.5308	0.5390
12.1	1.8674	0.5140	0.0247	0.4880	0.4968	0.5055	0.5140	0.5225	0.5308	0.5389
12.2	1.8552	0.5140	0.0247	0.4880	0.4968	0.5055	0.5140	0.5224	0.5307	0.5389
12.3	1.8430	0.5139	0.0247	0.4880	0.4968	0.5054	0.5139	0.5223	0.5306	0.5388
12.4	1.8308	0.5139	0.0246	0.4880	0.4968	0.5054	0.5139	0.5223	0.5306	0.5387
12.5	1.8186	0.5139	0.0246	0.4880	0.4968	0.5054	0.5139	0.5223	0.5305	0.5387
12.6	1.8064	0.5139	0.0246	0.4881	0.4968	0.5054	0.5139	0.5222	0.5305	0.5387
12.7	1.7942	0.5139	0.0246	0.4881	0.4968	0.5054	0.5139	0.5222	0.5305	0.5386
12.8	1.7820	0.5139	0.0245	0.4881	0.4968	0.5054	0.5139	0.5222	0.5305	0.5386
12.9	1.7698	0.5139	0.0245	0.4882	0.4969	0.5054	0.5139	0.5222	0.5305	0.5386
13	1.7576	0.5139	0.0245	0.4883	0.4969	0.5055	0.5139	0.5222	0.5305	0.5386
13.1	1.7454	0.5139	0.0244	0.4883	0.4970	0.5055	0.5139	0.5222	0.5305	0.5386
13.2	1.7332	0.5140	0.0244	0.4884	0.4970	0.5055	0.5140	0.5223	0.5305	0.5386
13.3	1.7210	0.5140	0.0244	0.4885	0.4971	0.5056	0.5140	0.5223	0.5305	0.5386
13.4	1.7088	0.5141	0.0244	0.4886	0.4972	0.5057	0.5141	0.5224	0.5306	0.5387
13.5	1.6966	0.5141	0.0243	0.4887	0.4973	0.5057	0.5141	0.5224	0.5306	0.5387
13.6	1.6844	0.5142	0.0243	0.4888	0.4974	0.5058	0.5142	0.5225	0.5307	0.5388
13.7	1.6723	0.5143	0.0243	0.4889	0.4975	0.5059	0.5143	0.5226	0.5307	0.5388
13.8	1.6601	0.5144	0.0242	0.4890	0.4976	0.5060	0.5144	0.5226	0.5308	0.5389
13.9	1.6479	0.5145	0.0242	0.4891	0.4977	0.5061	0.5145	0.5227	0.5309	0.5390
14	1.6357	0.5146	0.0242	0.4893	0.4978	0.5062	0.5146	0.5228	0.5310	0.5391
14.1	1.6235	0.5147	0.0241	0.4894	0.4979	0.5063	0.5147	0.5229	0.5311	0.5392
14.2	1.6113	0.5148	0.0241	0.4896	0.4981	0.5065	0.5148	0.5230	0.5312	0.5393
14.3	1.5991	0.5149	0.0241	0.4897	0.4982	0.5066	0.5149	0.5231	0.5313	0.5394
14.4	1.5869	0.5150	0.0241	0.4899	0.4984	0.5067	0.5150	0.5233	0.5314	0.5395
14.5	1.5747	0.5152	0.0240	0.4901	0.4985	0.5069	0.5152	0.5234	0.5315	0.5396
14.6	1.5625	0.5153	0.0240	0.4902	0.4987	0.5070	0.5153	0.5235	0.5317	0.5397
14.7	1.5503	0.5155	0.0240	0.4904	0.4989	0.5072	0.5155	0.5237	0.5318	0.5399
14.8	1.5381	0.5156	0.0239	0.4906	0.4990	0.5074	0.5156	0.5238	0.5320	0.5400
14.9	1.5259	0.5158	0.0239	0.4908	0.4992	0.5075	0.5158	0.5240	0.5321	0.5402
15	1.5137	0.5160	0.0239	0.4910	0.4994	0.5077	0.5160	0.5241	0.5323	0.5403
15.1	1.5015	0.5161	0.0239	0.4912	0.4996	0.5079	0.5161	0.5243	0.5324	0.5405
15.2	1.4893	0.5163	0.0238	0.4914	0.4998	0.5081	0.5163	0.5245	0.5326	0.5406
15.3	1.4771	0.5165	0.0238	0.4916	0.5000	0.5083	0.5165	0.5246	0.5328	0.5408
15.4	1.4649	0.5167	0.0238	0.4918	0.5002	0.5085	0.5167	0.5248	0.5329	0.5410
15.5	1.4527	0.5169	0.0237	0.4920	0.5004	0.5086	0.5169	0.5250	0.5331	0.5411

(*continued*)

Table III. Continued

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
15.6	1.4405	0.5170	0.0237	0.4923	0.5006	0.5088	0.5170	0.5252	0.5333	0.5413
15.7	1.4283	0.5172	0.0237	0.4925	0.5008	0.5090	0.5172	0.5254	0.5335	0.5415
15.8	1.4161	0.5174	0.0237	0.4927	0.5010	0.5093	0.5174	0.5256	0.5337	0.5417
15.9	1.4039	0.5176	0.0236	0.4929	0.5012	0.5095	0.5176	0.5258	0.5338	0.5419
16	1.3917	0.5178	0.0236	0.4932	0.5015	0.5097	0.5178	0.5260	0.5340	0.5421
16.1	1.3795	0.5181	0.0236	0.4934	0.5017	0.5099	0.5181	0.5262	0.5342	0.5423
16.2	1.3673	0.5183	0.0235	0.4936	0.5019	0.5101	0.5183	0.5264	0.5344	0.5424
16.3	1.3551	0.5185	0.0235	0.4939	0.5021	0.5103	0.5185	0.5266	0.5346	0.5426
16.4	1.3429	0.5187	0.0235	0.4941	0.5024	0.5105	0.5187	0.5268	0.5348	0.5428
16.5	1.3307	0.5189	0.0234	0.4944	0.5026	0.5108	0.5189	0.5270	0.5350	0.5430
16.6	1.3185	0.5191	0.0234	0.4946	0.5028	0.5110	0.5191	0.5272	0.5352	0.5432
16.7	1.3063	0.5193	0.0234	0.4949	0.5031	0.5112	0.5193	0.5274	0.5354	0.5435
16.8	1.2941	0.5195	0.0234	0.4951	0.5033	0.5114	0.5195	0.5276	0.5357	0.5437
16.9	1.2819	0.5198	0.0233	0.4953	0.5035	0.5117	0.5198	0.5278	0.5359	0.5439
17	1.2697	0.5200	0.0233	0.4956	0.5038	0.5119	0.5200	0.5280	0.5361	0.5441
17.1	1.2575	0.5202	0.0233	0.4958	0.5040	0.5121	0.5202	0.5283	0.5363	0.5443
17.2	1.2453	0.5204	0.0232	0.4961	0.5042	0.5123	0.5204	0.5285	0.5365	0.5445
17.3	1.2331	0.5206	0.0232	0.4963	0.5045	0.5126	0.5206	0.5287	0.5367	0.5447
17.4	1.2209	0.5209	0.0232	0.4966	0.5047	0.5128	0.5209	0.5289	0.5369	0.5449
17.5	1.2087	0.5211	0.0232	0.4968	0.5049	0.5130	0.5211	0.5291	0.5371	0.5451
17.6	1.1965	0.5213	0.0231	0.4971	0.5052	0.5133	0.5213	0.5293	0.5373	0.5453
17.7	1.1843	0.5215	0.0231	0.4973	0.5054	0.5135	0.5215	0.5295	0.5375	0.5455
17.8	1.1721	0.5217	0.0231	0.4976	0.5057	0.5137	0.5217	0.5298	0.5377	0.5457
17.9	1.1600	0.5220	0.0230	0.4978	0.5059	0.5139	0.5220	0.5300	0.5380	0.5459
18	1.1575	0.5220	0.0230	0.4979	0.5059	0.5140	0.5220	0.5300	0.5380	0.5460

Table IV. NHW or Mexican American Girls

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
2	3.8347	0.5729	0.0273	0.5389	0.5509	0.5622	0.5729	0.5831	0.5928	0.6021
2.1	3.8193	0.5719	0.0273	0.5379	0.5499	0.5612	0.5719	0.5820	0.5917	0.6009
2.2	3.8039	0.5708	0.0272	0.5370	0.5489	0.5601	0.5708	0.5809	0.5905	0.5997
2.3	3.7885	0.5697	0.0272	0.5360	0.5479	0.5591	0.5697	0.5798	0.5894	0.5986
2.4	3.7731	0.5686	0.0272	0.5350	0.5469	0.5580	0.5686	0.5787	0.5882	0.5974
2.5	3.7576	0.5675	0.0271	0.5341	0.5459	0.5570	0.5675	0.5775	0.5871	0.5963
2.6	3.7422	0.5664	0.0271	0.5331	0.5449	0.5559	0.5664	0.5764	0.5860	0.5951
2.7	3.7268	0.5654	0.0271	0.5322	0.5439	0.5549	0.5654	0.5753	0.5848	0.5939
2.8	3.7113	0.5643	0.0270	0.5312	0.5429	0.5539	0.5643	0.5742	0.5837	0.5928
2.9	3.6959	0.5632	0.0270	0.5303	0.5419	0.5528	0.5632	0.5731	0.5826	0.5916
3	3.6804	0.5621	0.0270	0.5293	0.5409	0.5518	0.5621	0.5720	0.5815	0.5905
3.1	3.6649	0.5611	0.0269	0.5284	0.5399	0.5508	0.5611	0.5709	0.5803	0.5894
3.2	3.6494	0.5600	0.0269	0.5275	0.5389	0.5497	0.5600	0.5698	0.5792	0.5882
3.3	3.6338	0.5590	0.0269	0.5265	0.5379	0.5487	0.5590	0.5688	0.5781	0.5871
3.4	3.6182	0.5579	0.0268	0.5256	0.5370	0.5477	0.5579	0.5677	0.5770	0.5860
3.5	3.6026	0.5569	0.0268	0.5247	0.5360	0.5467	0.5569	0.5666	0.5759	0.5849
3.6	3.5870	0.5559	0.0268	0.5238	0.5350	0.5457	0.5559	0.5656	0.5749	0.5838
3.7	3.5713	0.5549	0.0267	0.5229	0.5341	0.5447	0.5549	0.5645	0.5738	0.5827
3.8	3.5556	0.5539	0.0267	0.5220	0.5332	0.5438	0.5539	0.5635	0.5727	0.5816
3.9	3.5399	0.5529	0.0267	0.5211	0.5322	0.5428	0.5529	0.5625	0.5717	0.5805
4	3.5241	0.5519	0.0266	0.5203	0.5313	0.5418	0.5519	0.5615	0.5707	0.5795
4.1	3.5083	0.5509	0.0266	0.5194	0.5304	0.5409	0.5509	0.5605	0.5696	0.5784
4.2	3.4924	0.5499	0.0266	0.5185	0.5295	0.5400	0.5499	0.5595	0.5686	0.5774
4.3	3.4765	0.5490	0.0265	0.5177	0.5287	0.5391	0.5490	0.5585	0.5676	0.5764
4.4	3.4605	0.5481	0.0265	0.5169	0.5278	0.5382	0.5481	0.5575	0.5666	0.5754
4.5	3.4445	0.5471	0.0265	0.5161	0.5269	0.5373	0.5471	0.5566	0.5657	0.5744
4.6	3.4284	0.5462	0.0264	0.5153	0.5261	0.5364	0.5462	0.5556	0.5647	0.5734
4.7	3.4123	0.5453	0.0264	0.5145	0.5253	0.5355	0.5453	0.5547	0.5638	0.5725
4.8	3.3961	0.5444	0.0264	0.5137	0.5244	0.5347	0.5444	0.5538	0.5628	0.5715
4.9	3.3798	0.5436	0.0263	0.5130	0.5236	0.5338	0.5436	0.5529	0.5619	0.5706
5	3.3636	0.5427	0.0263	0.5122	0.5229	0.5330	0.5427	0.5521	0.5610	0.5697
5.1	3.3472	0.5419	0.0263	0.5115	0.5221	0.5322	0.5419	0.5512	0.5601	0.5688
5.2	3.3308	0.5411	0.0262	0.5108	0.5213	0.5314	0.5411	0.5504	0.5593	0.5679
5.3	3.3143	0.5403	0.0262	0.5101	0.5206	0.5306	0.5403	0.5495	0.5584	0.5670
5.4	3.2978	0.5395	0.0262	0.5094	0.5199	0.5299	0.5395	0.5487	0.5576	0.5662
5.5	3.2812	0.5387	0.0261	0.5087	0.5192	0.5291	0.5387	0.5479	0.5568	0.5653
5.6	3.2646	0.5380	0.0261	0.5080	0.5185	0.5284	0.5380	0.5471	0.5560	0.5645
5.7	3.2479	0.5372	0.0261	0.5074	0.5178	0.5277	0.5372	0.5464	0.5552	0.5637
5.8	3.2311	0.5365	0.0260	0.5068	0.5171	0.5270	0.5365	0.5456	0.5544	0.5629
5.9	3.2143	0.5358	0.0260	0.5062	0.5165	0.5263	0.5358	0.5449	0.5537	0.5622
6	3.1974	0.5351	0.0260	0.5056	0.5158	0.5257	0.5351	0.5442	0.5530	0.5614
6.1	3.1805	0.5344	0.0259	0.5050	0.5152	0.5250	0.5344	0.5435	0.5522	0.5607
6.2	3.1635	0.5338	0.0259	0.5044	0.5146	0.5244	0.5338	0.5428	0.5515	0.5600
6.3	3.1465	0.5331	0.0259	0.5039	0.5140	0.5238	0.5331	0.5422	0.5509	0.5593
6.4	3.1294	0.5325	0.0258	0.5033	0.5134	0.5232	0.5325	0.5415	0.5502	0.5586
6.5	3.1122	0.5319	0.0258	0.5028	0.5129	0.5226	0.5319	0.5409	0.5496	0.5580
6.6	3.0950	0.5313	0.0258	0.5023	0.5123	0.5220	0.5313	0.5403	0.5489	0.5573
6.7	3.0777	0.5307	0.0257	0.5018	0.5118	0.5214	0.5307	0.5397	0.5483	0.5567
6.8	3.0604	0.5301	0.0257	0.5013	0.5113	0.5209	0.5301	0.5391	0.5477	0.5561
6.9	3.0430	0.5296	0.0257	0.5008	0.5108	0.5204	0.5296	0.5385	0.5471	0.5555
7	3.0256	0.5291	0.0256	0.5004	0.5103	0.5199	0.5291	0.5380	0.5466	0.5549
7.1	3.0081	0.5285	0.0256	0.5000	0.5098	0.5194	0.5285	0.5374	0.5460	0.5543
7.2	2.9906	0.5280	0.0256	0.4995	0.5094	0.5189	0.5280	0.5369	0.5455	0.5538
7.3	2.9730	0.5276	0.0255	0.4991	0.5089	0.5184	0.5276	0.5364	0.5449	0.5532
7.4	2.9554	0.5271	0.0255	0.4987	0.5085	0.5180	0.5271	0.5359	0.5444	0.5527
7.5	2.9377	0.5266	0.0255	0.4983	0.5081	0.5175	0.5266	0.5354	0.5439	0.5522
7.6	2.9200	0.5262	0.0254	0.4980	0.5077	0.5171	0.5262	0.5350	0.5435	0.5517
7.7	2.9022	0.5257	0.0254	0.4976	0.5073	0.5167	0.5257	0.5345	0.5430	0.5513
7.8	2.8844	0.5253	0.0254	0.4973	0.5070	0.5163	0.5253	0.5341	0.5426	0.5508
7.9	2.8665	0.5249	0.0253	0.4970	0.5066	0.5159	0.5249	0.5337	0.5421	0.5504
8	2.8486	0.5245	0.0253	0.4966	0.5063	0.5156	0.5245	0.5333	0.5417	0.5499
8.1	2.8307	0.5242	0.0253	0.4963	0.5059	0.5152	0.5242	0.5329	0.5413	0.5495
8.2	2.8127	0.5238	0.0252	0.4961	0.5056	0.5149	0.5238	0.5325	0.5409	0.5491
8.3	2.7946	0.5235	0.0252	0.4958	0.5053	0.5145	0.5235	0.5321	0.5406	0.5488
8.4	2.7765	0.5231	0.0252	0.4955	0.5050	0.5142	0.5231	0.5318	0.5402	0.5484
8.5	2.7584	0.5228	0.0251	0.4953	0.5048	0.5139	0.5228	0.5315	0.5399	0.5480
8.6	2.7402	0.5225	0.0251	0.4950	0.5045	0.5137	0.5225	0.5312	0.5395	0.5477
8.7	2.7220	0.5222	0.0251	0.4948	0.5042	0.5134	0.5222	0.5309	0.5392	0.5474

(*continued*)

Table IV. Continued

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
8.8	2.7037	0.5220	0.0251	0.4946	0.5040	0.5131	0.5220	0.5306	0.5389	0.5471
8.9	2.6854	0.5217	0.0250	0.4944	0.5038	0.5129	0.5217	0.5303	0.5386	0.5468
9	2.6670	0.5215	0.0250	0.4942	0.5036	0.5127	0.5215	0.5300	0.5384	0.5465
9.1	2.6486	0.5212	0.0250	0.4941	0.5034	0.5124	0.5212	0.5298	0.5381	0.5462
9.2	2.6302	0.5210	0.0249	0.4939	0.5032	0.5122	0.5210	0.5296	0.5379	0.5460
9.3	2.6117	0.5208	0.0249	0.4938	0.5030	0.5120	0.5208	0.5293	0.5376	0.5458
9.4	2.5932	0.5206	0.0249	0.4936	0.5029	0.5119	0.5206	0.5291	0.5374	0.5455
9.5	2.5746	0.5204	0.0248	0.4935	0.5027	0.5117	0.5204	0.5289	0.5372	0.5453
9.6	2.5560	0.5203	0.0248	0.4934	0.5026	0.5116	0.5203	0.5288	0.5370	0.5451
9.7	2.5373	0.5201	0.0248	0.4933	0.5025	0.5114	0.5201	0.5286	0.5369	0.5450
9.8	2.5186	0.5200	0.0247	0.4932	0.5024	0.5113	0.5200	0.5284	0.5367	0.5448
9.9	2.4998	0.5198	0.0247	0.4931	0.5023	0.5112	0.5198	0.5283	0.5366	0.5446
10	2.4811	0.5197	0.0247	0.4931	0.5022	0.5111	0.5197	0.5282	0.5364	0.5445
10.1	2.4622	0.5196	0.0246	0.4930	0.5021	0.5110	0.5196	0.5281	0.5363	0.5444
10.2	2.4433	0.5195	0.0246	0.4930	0.5021	0.5109	0.5195	0.5280	0.5362	0.5443
10.3	2.4244	0.5195	0.0246	0.4930	0.5020	0.5109	0.5195	0.5279	0.5361	0.5442
10.4	2.4055	0.5194	0.0245	0.4930	0.5020	0.5108	0.5194	0.5278	0.5360	0.5441
10.5	2.3865	0.5194	0.0245	0.4930	0.5020	0.5108	0.5194	0.5277	0.5360	0.5440
10.6	2.3675	0.5193	0.0245	0.4930	0.5020	0.5107	0.5193	0.5277	0.5359	0.5439
10.7	2.3484	0.5193	0.0244	0.4930	0.5020	0.5107	0.5193	0.5277	0.5359	0.5439
10.8	2.3293	0.5193	0.0244	0.4930	0.5020	0.5107	0.5193	0.5276	0.5358	0.5439
10.9	2.3102	0.5193	0.0244	0.4931	0.5020	0.5107	0.5193	0.5276	0.5358	0.5438
11	2.2910	0.5193	0.0244	0.4932	0.5021	0.5108	0.5193	0.5276	0.5358	0.5438
11.1	2.2718	0.5193	0.0243	0.4932	0.5021	0.5108	0.5193	0.5277	0.5358	0.5438
11.2	2.2526	0.5194	0.0243	0.4933	0.5022	0.5109	0.5194	0.5277	0.5358	0.5439
11.3	2.2333	0.5194	0.0243	0.4934	0.5022	0.5109	0.5194	0.5277	0.5359	0.5439
11.4	2.2141	0.5195	0.0242	0.4935	0.5023	0.5110	0.5195	0.5278	0.5359	0.5439
11.5	2.1947	0.5195	0.0242	0.4936	0.5024	0.5111	0.5195	0.5278	0.5360	0.5440
11.6	2.1754	0.5196	0.0242	0.4937	0.5025	0.5112	0.5196	0.5279	0.5360	0.5440
11.7	2.1560	0.5197	0.0241	0.4939	0.5027	0.5113	0.5197	0.5280	0.5361	0.5441
11.8	2.1367	0.5198	0.0241	0.4940	0.5028	0.5114	0.5198	0.5281	0.5362	0.5442
11.9	2.1172	0.5199	0.0241	0.4942	0.5029	0.5115	0.5199	0.5282	0.5363	0.5443
12	2.0978	0.5200	0.0240	0.4943	0.5031	0.5116	0.5200	0.5283	0.5364	0.5444
12.1	2.0784	0.5202	0.0240	0.4945	0.5032	0.5118	0.5202	0.5284	0.5365	0.5445
12.2	2.0589	0.5203	0.0240	0.4947	0.5034	0.5119	0.5203	0.5285	0.5367	0.5446
12.3	2.0394	0.5204	0.0239	0.4949	0.5035	0.5121	0.5204	0.5287	0.5368	0.5448
12.4	2.0199	0.5206	0.0239	0.4951	0.5037	0.5122	0.5206	0.5288	0.5369	0.5449
12.5	2.0004	0.5208	0.0239	0.4952	0.5039	0.5124	0.5208	0.5290	0.5371	0.5451
12.6	1.9808	0.5209	0.0239	0.4955	0.5041	0.5126	0.5209	0.5291	0.5372	0.5452
12.7	1.9613	0.5211	0.0238	0.4957	0.5043	0.5127	0.5211	0.5293	0.5374	0.5454
12.8	1.9417	0.5213	0.0238	0.4959	0.5045	0.5129	0.5213	0.5295	0.5376	0.5455
12.9	1.9221	0.5215	0.0238	0.4961	0.5047	0.5131	0.5215	0.5297	0.5377	0.5457
13	1.9025	0.5216	0.0237	0.4963	0.5049	0.5133	0.5216	0.5298	0.5379	0.5459
13.1	1.8829	0.5218	0.0237	0.4966	0.5051	0.5135	0.5218	0.5300	0.5381	0.5461
13.2	1.8633	0.5220	0.0237	0.4968	0.5053	0.5137	0.5220	0.5302	0.5383	0.5463
13.3	1.8437	0.5222	0.0236	0.4970	0.5055	0.5139	0.5222	0.5304	0.5385	0.5464
13.4	1.8241	0.5224	0.0236	0.4973	0.5058	0.5142	0.5224	0.5306	0.5387	0.5466
13.5	1.8045	0.5226	0.0236	0.4975	0.5060	0.5144	0.5226	0.5308	0.5389	0.5468
13.6	1.7849	0.5228	0.0235	0.4978	0.5062	0.5146	0.5228	0.5310	0.5391	0.5470
13.7	1.7652	0.5231	0.0235	0.4980	0.5065	0.5148	0.5231	0.5312	0.5393	0.5472
13.8	1.7456	0.5233	0.0235	0.4982	0.5067	0.5150	0.5233	0.5314	0.5395	0.5474
13.9	1.7259	0.5235	0.0235	0.4985	0.5069	0.5153	0.5235	0.5316	0.5397	0.5476
14	1.7063	0.5237	0.0234	0.4988	0.5072	0.5155	0.5237	0.5318	0.5399	0.5478
14.1	1.6866	0.5239	0.0234	0.4990	0.5074	0.5157	0.5239	0.5321	0.5401	0.5481
14.2	1.6669	0.5241	0.0234	0.4993	0.5076	0.5159	0.5241	0.5323	0.5403	0.5483
14.3	1.6472	0.5244	0.0233	0.4995	0.5079	0.5162	0.5244	0.5325	0.5405	0.5485
14.4	1.6276	0.5246	0.0233	0.4998	0.5081	0.5164	0.5246	0.5327	0.5407	0.5487
14.5	1.6079	0.5248	0.0233	0.5000	0.5084	0.5166	0.5248	0.5329	0.5409	0.5489
14.6	1.5882	0.5250	0.0232	0.5003	0.5086	0.5169	0.5250	0.5331	0.5412	0.5491
14.7	1.5685	0.5253	0.0232	0.5005	0.5089	0.5171	0.5253	0.5333	0.5414	0.5493
14.8	1.5488	0.5255	0.0232	0.5008	0.5091	0.5173	0.5255	0.5336	0.5416	0.5495
14.9	1.5291	0.5257	0.0231	0.5011	0.5093	0.5176	0.5257	0.5338	0.5418	0.5498
15	1.5094	0.5259	0.0231	0.5013	0.5096	0.5178	0.5259	0.5340	0.5420	0.5500
15.1	1.4896	0.5262	0.0231	0.5016	0.5098	0.5180	0.5262	0.5342	0.5422	0.5502
15.2	1.4699	0.5264	0.0230	0.5018	0.5101	0.5183	0.5264	0.5344	0.5424	0.5504
15.3	1.4502	0.5266	0.0230	0.5021	0.5103	0.5185	0.5266	0.5347	0.5427	0.5506
15.4	1.4305	0.5268	0.0230	0.5024	0.5106	0.5187	0.5268	0.5349	0.5429	0.5508
15.5	1.4107	0.5270	0.0230	0.5026	0.5108	0.5190	0.5270	0.5351	0.5431	0.5510

(*continued*)

Table IV. Continued

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
15.6	1.3910	0.5273	0.0229	0.5029	0.5111	0.5192	0.5273	0.5353	0.5433	0.5512
15.7	1.3713	0.5275	0.0229	0.5031	0.5113	0.5194	0.5275	0.5355	0.5435	0.5514
15.8	1.3515	0.5277	0.0229	0.5034	0.5115	0.5196	0.5277	0.5357	0.5437	0.5517
15.9	1.3318	0.5279	0.0228	0.5036	0.5118	0.5199	0.5279	0.5360	0.5439	0.5519
16	1.3121	0.5282	0.0228	0.5039	0.5120	0.5201	0.5282	0.5362	0.5441	0.5521
16.1	1.2923	0.5284	0.0228	0.5042	0.5123	0.5203	0.5284	0.5364	0.5444	0.5523
16.2	1.2726	0.5286	0.0227	0.5044	0.5125	0.5206	0.5286	0.5366	0.5446	0.5525
16.3	1.2528	0.5288	0.0227	0.5047	0.5127	0.5208	0.5288	0.5368	0.5448	0.5527
16.4	1.2331	0.5290	0.0227	0.5049	0.5130	0.5210	0.5290	0.5370	0.5450	0.5529
16.5	1.2133	0.5293	0.0226	0.5052	0.5132	0.5213	0.5293	0.5372	0.5452	0.5531
16.6	1.1936	0.5295	0.0226	0.5054	0.5135	0.5215	0.5295	0.5375	0.5454	0.5533
16.7	1.1738	0.5297	0.0226	0.5057	0.5137	0.5217	0.5297	0.5377	0.5456	0.5535
16.8	1.1540	0.5299	0.0226	0.5059	0.5139	0.5219	0.5299	0.5379	0.5458	0.5537
16.9	1.1343	0.5301	0.0225	0.5062	0.5142	0.5222	0.5301	0.5381	0.5460	0.5540
17	1.1145	0.5304	0.0225	0.5064	0.5144	0.5224	0.5304	0.5383	0.5462	0.5542
17.1	1.0947	0.5306	0.0225	0.5067	0.5147	0.5226	0.5306	0.5385	0.5465	0.5544
17.2	1.0750	0.5308	0.0224	0.5069	0.5149	0.5229	0.5308	0.5387	0.5467	0.5546
17.3	1.0552	0.5310	0.0224	0.5072	0.5151	0.5231	0.5310	0.5390	0.5469	0.5548
17.4	1.0354	0.5312	0.0224	0.5075	0.5154	0.5233	0.5312	0.5392	0.5471	0.5550
17.5	1.0157	0.5315	0.0223	0.5077	0.5156	0.5235	0.5315	0.5394	0.5473	0.5552
17.6	0.9959	0.5317	0.0223	0.5080	0.5159	0.5238	0.5317	0.5396	0.5475	0.5554
17.7	0.9761	0.5319	0.0223	0.5082	0.5161	0.5240	0.5319	0.5398	0.5477	0.5556
17.8	0.9563	0.5321	0.0222	0.5085	0.5164	0.5242	0.5321	0.5400	0.5479	0.5558
17.9	0.9366	0.5323	0.0222	0.5087	0.5166	0.5245	0.5323	0.5402	0.5481	0.5560
18	0.9326	0.5324	0.0222	0.5088	0.5166	0.5245	0.5324	0.5403	0.5482	0.5561

Table V. NHB Boys

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
2	2.8212	0.5633	0.0280	0.5301	0.5416	0.5527	0.5633	0.5737	0.5837	0.5934
2.1	2.7796	0.5622	0.0280	0.5291	0.5405	0.5516	0.5622	0.5725	0.5825	0.5922
2.2	2.7380	0.5611	0.0279	0.5281	0.5395	0.5505	0.5611	0.5714	0.5814	0.5910
2.3	2.6964	0.5600	0.0279	0.5271	0.5385	0.5494	0.5600	0.5702	0.5802	0.5899
2.4	2.6548	0.5589	0.0279	0.5261	0.5374	0.5483	0.5589	0.5691	0.5790	0.5887
2.5	2.6132	0.5577	0.0278	0.5252	0.5364	0.5472	0.5577	0.5679	0.5779	0.5875
2.6	2.5716	0.5566	0.0278	0.5242	0.5353	0.5461	0.5566	0.5668	0.5767	0.5863
2.7	2.5300	0.5555	0.0278	0.5232	0.5343	0.5451	0.5555	0.5657	0.5755	0.5852
2.8	2.4884	0.5544	0.0278	0.5222	0.5333	0.5440	0.5544	0.5645	0.5744	0.5840
2.9	2.4468	0.5533	0.0277	0.5213	0.5322	0.5429	0.5533	0.5634	0.5732	0.5828
3	2.4051	0.5522	0.0277	0.5203	0.5312	0.5418	0.5522	0.5623	0.5721	0.5817
3.1	2.3634	0.5511	0.0277	0.5193	0.5302	0.5408	0.5511	0.5611	0.5709	0.5805
3.2	2.3217	0.5500	0.0277	0.5184	0.5292	0.5397	0.5500	0.5600	0.5698	0.5794
3.3	2.2800	0.5489	0.0276	0.5174	0.5282	0.5387	0.5489	0.5589	0.5687	0.5782
3.4	2.2383	0.5478	0.0276	0.5165	0.5272	0.5376	0.5478	0.5578	0.5676	0.5771
3.5	2.1965	0.5468	0.0276	0.5155	0.5262	0.5366	0.5468	0.5567	0.5665	0.5760
3.6	2.1547	0.5457	0.0276	0.5146	0.5252	0.5356	0.5457	0.5556	0.5654	0.5749
3.7	2.1128	0.5447	0.0275	0.5137	0.5242	0.5346	0.5447	0.5546	0.5643	0.5738
3.8	2.0709	0.5436	0.0275	0.5128	0.5233	0.5335	0.5436	0.5535	0.5632	0.5727
3.9	2.0290	0.5426	0.0275	0.5119	0.5223	0.5326	0.5426	0.5524	0.5621	0.5716
4	1.9871	0.5416	0.0275	0.5110	0.5214	0.5316	0.5416	0.5514	0.5610	0.5705
4.1	1.9451	0.5406	0.0274	0.5101	0.5204	0.5306	0.5406	0.5504	0.5600	0.5695
4.2	1.9031	0.5396	0.0274	0.5092	0.5195	0.5296	0.5396	0.5493	0.5590	0.5684
4.3	1.8610	0.5386	0.0274	0.5084	0.5186	0.5287	0.5386	0.5483	0.5579	0.5674
4.4	1.8189	0.5376	0.0273	0.5075	0.5177	0.5277	0.5376	0.5473	0.5569	0.5664
4.5	1.7767	0.5366	0.0273	0.5067	0.5168	0.5268	0.5366	0.5464	0.5559	0.5654
4.6	1.7346	0.5357	0.0273	0.5058	0.5159	0.5259	0.5357	0.5454	0.5549	0.5644
4.7	1.6923	0.5348	0.0273	0.5050	0.5151	0.5250	0.5348	0.5444	0.5540	0.5634
4.8	1.6501	0.5338	0.0272	0.5042	0.5142	0.5241	0.5338	0.5435	0.5530	0.5624
4.9	1.6077	0.5329	0.0272	0.5034	0.5134	0.5232	0.5329	0.5426	0.5521	0.5615
5	1.5654	0.5320	0.0272	0.5026	0.5126	0.5224	0.5320	0.5416	0.5511	0.5606
5.1	1.5230	0.5312	0.0272	0.5019	0.5117	0.5215	0.5312	0.5407	0.5502	0.5596
5.2	1.4805	0.5303	0.0271	0.5011	0.5109	0.5207	0.5303	0.5399	0.5493	0.5587
5.3	1.4380	0.5295	0.0271	0.5004	0.5102	0.5198	0.5295	0.5390	0.5484	0.5578
5.4	1.3955	0.5286	0.0271	0.4997	0.5094	0.5190	0.5286	0.5381	0.5476	0.5570
5.5	1.3529	0.5278	0.0271	0.4989	0.5086	0.5182	0.5278	0.5373	0.5467	0.5561
5.6	1.3103	0.5270	0.0270	0.4982	0.5079	0.5175	0.5270	0.5365	0.5459	0.5552
5.7	1.2677	0.5262	0.0270	0.4975	0.5071	0.5167	0.5262	0.5356	0.5450	0.5544
5.8	1.2249	0.5254	0.0270	0.4969	0.5064	0.5159	0.5254	0.5348	0.5442	0.5536
5.9	1.1822	0.5246	0.0270	0.4962	0.5057	0.5152	0.5246	0.5341	0.5434	0.5528
6	1.1394	0.5239	0.0269	0.4956	0.5050	0.5145	0.5239	0.5333	0.5427	0.5520
6.1	1.0966	0.5231	0.0269	0.4949	0.5043	0.5138	0.5231	0.5325	0.5419	0.5512
6.2	1.0537	0.5224	0.0269	0.4943	0.5037	0.5131	0.5224	0.5318	0.5411	0.5505
6.3	1.0108	0.5217	0.0269	0.4937	0.5030	0.5124	0.5217	0.5310	0.5404	0.5497
6.4	0.9678	0.5210	0.0268	0.4931	0.5024	0.5117	0.5210	0.5303	0.5397	0.5490
6.5	0.9248	0.5203	0.0268	0.4925	0.5017	0.5110	0.5203	0.5296	0.5389	0.5483
6.6	0.8818	0.5196	0.0268	0.4919	0.5011	0.5104	0.5196	0.5289	0.5382	0.5476
6.7	0.8387	0.5190	0.0268	0.4913	0.5005	0.5097	0.5190	0.5282	0.5375	0.5469
6.8	0.7956	0.5183	0.0267	0.4908	0.4999	0.5091	0.5183	0.5276	0.5369	0.5462
6.9	0.7524	0.5177	0.0267	0.4902	0.4993	0.5085	0.5177	0.5269	0.5362	0.5455
7	0.7092	0.5171	0.0267	0.4897	0.4987	0.5079	0.5171	0.5263	0.5355	0.5449
7.1	0.6659	0.5164	0.0267	0.4891	0.4982	0.5073	0.5164	0.5256	0.5349	0.5442
7.2	0.6226	0.5158	0.0266	0.4886	0.4976	0.5067	0.5158	0.5250	0.5343	0.5436
7.3	0.5793	0.5152	0.0266	0.4881	0.4971	0.5061	0.5152	0.5244	0.5336	0.5430
7.4	0.5359	0.5146	0.0266	0.4876	0.4965	0.5056	0.5146	0.5238	0.5330	0.5423
7.5	0.4925	0.5141	0.0266	0.4871	0.4960	0.5050	0.5141	0.5232	0.5324	0.5417
7.6	0.4491	0.5135	0.0265	0.4866	0.4955	0.5045	0.5135	0.5226	0.5318	0.5411
7.7	0.4056	0.5129	0.0265	0.4862	0.4950	0.5039	0.5129	0.5221	0.5313	0.5406
7.8	0.3621	0.5124	0.0265	0.4857	0.4945	0.5034	0.5124	0.5215	0.5307	0.5400
7.9	0.3186	0.5119	0.0265	0.4852	0.4940	0.5029	0.5119	0.5209	0.5301	0.5394
8	0.2750	0.5113	0.0264	0.4848	0.4935	0.5024	0.5113	0.5204	0.5296	0.5389
8.1	0.2314	0.5108	0.0264	0.4844	0.4931	0.5019	0.5108	0.5199	0.5290	0.5383
8.2	0.1877	0.5103	0.0264	0.4839	0.4926	0.5014	0.5103	0.5193	0.5285	0.5378
8.3	0.1440	0.5098	0.0264	0.4835	0.4921	0.5009	0.5098	0.5188	0.5280	0.5373
8.4	0.1003	0.5093	0.0263	0.4831	0.4917	0.5004	0.5093	0.5183	0.5275	0.5368
8.5	0.0566	0.5088	0.0263	0.4827	0.4913	0.5000	0.5088	0.5178	0.5270	0.5363
8.6	0.0128	0.5084	0.0263	0.4823	0.4908	0.4995	0.5084	0.5173	0.5265	0.5358
8.7	−0.0310	0.5079	0.0263	0.4819	0.4904	0.4991	0.5079	0.5169	0.5260	0.5353

(*continued*)

Table V. Continued

Age (years)	LMS Curves			Percentiles						
	L	M	S	3rd	10th	25th	50th	75th	90th	97th
8.8	−0.0748	0.5074	0.0262	0.4815	0.4900	0.4986	0.5074	0.5164	0.5255	0.5348
8.9	−0.1186	0.5070	0.0262	0.4812	0.4896	0.4982	0.5070	0.5159	0.5251	0.5344
9	−0.1625	0.5066	0.0262	0.4808	0.4892	0.4978	0.5066	0.5155	0.5246	0.5339
9.1	−0.2064	0.5061	0.0262	0.4804	0.4888	0.4974	0.5061	0.5151	0.5242	0.5335
9.2	−0.2504	0.5057	0.0262	0.4801	0.4885	0.4970	0.5057	0.5146	0.5237	0.5331
9.3	−0.2943	0.5053	0.0261	0.4798	0.4881	0.4966	0.5053	0.5142	0.5233	0.5326
9.4	−0.3383	0.5049	0.0261	0.4794	0.4877	0.4962	0.5049	0.5138	0.5229	0.5322
9.5	−0.3823	0.5045	0.0261	0.4791	0.4874	0.4958	0.5045	0.5134	0.5225	0.5318
9.6	−0.4264	0.5041	0.0261	0.4788	0.4870	0.4955	0.5041	0.5130	0.5221	0.5314
9.7	−0.4705	0.5038	0.0260	0.4785	0.4867	0.4951	0.5038	0.5126	0.5217	0.5310
9.8	−0.5146	0.5034	0.0260	0.4782	0.4864	0.4948	0.5034	0.5123	0.5213	0.5307
9.9	−0.5588	0.5031	0.0260	0.4779	0.4861	0.4945	0.5031	0.5119	0.5210	0.5303
10	−0.6029	0.5027	0.0260	0.4777	0.4858	0.4941	0.5027	0.5116	0.5206	0.5300
10.1	−0.6472	0.5024	0.0259	0.4774	0.4855	0.4938	0.5024	0.5112	0.5203	0.5296
10.2	−0.6914	0.5021	0.0259	0.4771	0.4852	0.4935	0.5021	0.5109	0.5200	0.5293
10.3	−0.7357	0.5018	0.0259	0.4769	0.4850	0.4932	0.5018	0.5106	0.5196	0.5290
10.4	−0.7800	0.5015	0.0259	0.4767	0.4847	0.4930	0.5015	0.5103	0.5193	0.5287
10.5	−0.8244	0.5012	0.0259	0.4765	0.4845	0.4927	0.5012	0.5100	0.5191	0.5284
10.6	−0.8688	0.5009	0.0258	0.4762	0.4842	0.4924	0.5009	0.5097	0.5188	0.5281
10.7	−0.9132	0.5007	0.0258	0.4760	0.4840	0.4922	0.5007	0.5094	0.5185	0.5279
10.8	−0.9577	0.5004	0.0258	0.4759	0.4838	0.4920	0.5004	0.5092	0.5182	0.5276
10.9	−1.0022	0.5002	0.0258	0.4757	0.4836	0.4918	0.5002	0.5089	0.5180	0.5274
11	−1.0467	0.5000	0.0258	0.4755	0.4834	0.4915	0.5000	0.5087	0.5178	0.5272
11.1	−1.0913	0.4998	0.0257	0.4754	0.4832	0.4913	0.4998	0.5085	0.5176	0.5270
11.2	−1.1360	0.4996	0.0257	0.4752	0.4831	0.4912	0.4996	0.5083	0.5173	0.5268
11.3	−1.1806	0.4994	0.0257	0.4751	0.4829	0.4910	0.4994	0.5081	0.5172	0.5266
11.4	−1.2253	0.4992	0.0257	0.4750	0.4828	0.4908	0.4992	0.5079	0.5170	0.5264
11.5	−1.2701	0.4991	0.0256	0.4749	0.4826	0.4907	0.4991	0.5078	0.5168	0.5262
11.6	−1.3149	0.4989	0.0256	0.4748	0.4825	0.4905	0.4989	0.5076	0.5167	0.5261
11.7	−1.3597	0.4988	0.0256	0.4747	0.4824	0.4904	0.4988	0.5075	0.5165	0.5260
11.8	−1.4046	0.4986	0.0256	0.4746	0.4823	0.4903	0.4986	0.5073	0.5164	0.5258
11.9	−1.4495	0.4985	0.0256	0.4745	0.4822	0.4902	0.4985	0.5072	0.5163	0.5257
12	−1.4944	0.4984	0.0255	0.4745	0.4821	0.4901	0.4984	0.5071	0.5162	0.5256
12.1	−1.5394	0.4983	0.0255	0.4744	0.4821	0.4900	0.4983	0.5070	0.5161	0.5255
12.2	−1.5844	0.4983	0.0255	0.4744	0.4820	0.4900	0.4983	0.5069	0.5160	0.5255
12.3	−1.6295	0.4982	0.0255	0.4744	0.4820	0.4899	0.4982	0.5069	0.5159	0.5254
12.4	−1.6746	0.4981	0.0255	0.4744	0.4820	0.4899	0.4981	0.5068	0.5159	0.5254
12.5	−1.7197	0.4981	0.0254	0.4744	0.4819	0.4898	0.4981	0.5067	0.5158	0.5253
12.6	−1.7649	0.4981	0.0254	0.4744	0.4819	0.4898	0.4981	0.5067	0.5158	0.5253
12.7	−1.8101	0.4980	0.0254	0.4744	0.4819	0.4898	0.4980	0.5067	0.5158	0.5253
12.8	−1.8554	0.4980	0.0254	0.4745	0.4820	0.4898	0.4980	0.5067	0.5157	0.5253
12.9	−1.9007	0.4980	0.0254	0.4745	0.4820	0.4898	0.4980	0.5067	0.5157	0.5253
13	−1.9460	0.4980	0.0253	0.4745	0.4820	0.4898	0.4980	0.5067	0.5157	0.5253
13.1	−1.9914	0.4981	0.0253	0.4746	0.4821	0.4899	0.4981	0.5067	0.5158	0.5254
13.2	−2.0368	0.4981	0.0253	0.4747	0.4821	0.4899	0.4981	0.5067	0.5158	0.5254
13.3	−2.0822	0.4981	0.0253	0.4748	0.4822	0.4899	0.4981	0.5067	0.5158	0.5255
13.4	−2.1277	0.4982	0.0253	0.4748	0.4822	0.4900	0.4982	0.5068	0.5159	0.5255
13.5	−2.1732	0.4982	0.0252	0.4749	0.4823	0.4901	0.4982	0.5068	0.5160	0.5256
13.6	−2.2187	0.4983	0.0252	0.4750	0.4824	0.4901	0.4983	0.5069	0.5160	0.5257
13.7	−2.2643	0.4984	0.0252	0.4752	0.4825	0.4902	0.4984	0.5070	0.5161	0.5258
13.8	−2.3099	0.4985	0.0252	0.4753	0.4826	0.4903	0.4985	0.5071	0.5162	0.5259
13.9	−2.3556	0.4986	0.0252	0.4754	0.4827	0.4904	0.4986	0.5072	0.5163	0.5260
14	−2.4013	0.4987	0.0251	0.4755	0.4828	0.4905	0.4987	0.5073	0.5164	0.5261
14.1	−2.4470	0.4988	0.0251	0.4757	0.4830	0.4906	0.4988	0.5074	0.5165	0.5262
14.2	−2.4927	0.4989	0.0251	0.4758	0.4831	0.4908	0.4989	0.5075	0.5166	0.5264
14.3	−2.5385	0.4990	0.0251	0.4760	0.4832	0.4909	0.4990	0.5076	0.5167	0.5265
14.4	−2.5842	0.4991	0.0251	0.4761	0.4834	0.4910	0.4991	0.5077	0.5169	0.5266
14.5	−2.6301	0.4993	0.0250	0.4763	0.4835	0.4912	0.4993	0.5079	0.5170	0.5268
14.6	−2.6759	0.4994	0.0250	0.4765	0.4837	0.4913	0.4994	0.5080	0.5172	0.5270
14.7	−2.7218	0.4995	0.0250	0.4767	0.4839	0.4915	0.4995	0.5081	0.5173	0.5271
14.8	−2.7677	0.4997	0.0250	0.4769	0.4840	0.4916	0.4997	0.5083	0.5175	0.5273
14.9	−2.8136	0.4999	0.0250	0.4770	0.4842	0.4918	0.4999	0.5084	0.5176	0.5275
15	−2.8595	0.5000	0.0249	0.4772	0.4844	0.4920	0.5000	0.5086	0.5178	0.5277
15.1	−2.9054	0.5002	0.0249	0.4774	0.4846	0.4921	0.5002	0.5088	0.5180	0.5279
15.2	−2.9514	0.5004	0.0249	0.4776	0.4848	0.4923	0.5004	0.5089	0.5182	0.5281
15.3	−2.9974	0.5005	0.0249	0.4778	0.4849	0.4925	0.5005	0.5091	0.5183	0.5283
15.4	−3.0434	0.5007	0.0249	0.4781	0.4851	0.4927	0.5007	0.5093	0.5185	0.5285

(*continued*)

Table V. Continued

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
15.5	−3.0894	0.5009	0.0248	0.4783	0.4853	0.4929	0.5009	0.5095	0.5187	0.5287
15.6	−3.1354	0.5011	0.0248	0.4785	0.4856	0.4931	0.5011	0.5097	0.5189	0.5289
15.7	−3.1815	0.5013	0.0248	0.4787	0.4858	0.4933	0.5013	0.5099	0.5191	0.5291
15.8	−3.2275	0.5015	0.0248	0.4789	0.4860	0.4935	0.5015	0.5101	0.5193	0.5293
15.9	−3.2736	0.5017	0.0248	0.4792	0.4862	0.4937	0.5017	0.5103	0.5195	0.5296
16	−3.3196	0.5019	0.0248	0.4794	0.4864	0.4939	0.5019	0.5105	0.5197	0.5298
16.1	−3.3657	0.5021	0.0247	0.4796	0.4866	0.4941	0.5021	0.5107	0.5200	0.5300
16.2	−3.4118	0.5023	0.0247	0.4799	0.4869	0.4943	0.5023	0.5109	0.5202	0.5302
16.3	−3.4579	0.5025	0.0247	0.4801	0.4871	0.4945	0.5025	0.5111	0.5204	0.5305
16.4	−3.5040	0.5027	0.0247	0.4804	0.4873	0.4948	0.5027	0.5113	0.5206	0.5307
16.5	−3.5501	0.5030	0.0247	0.4806	0.4876	0.4950	0.5030	0.5115	0.5208	0.5310
16.6	−3.5962	0.5032	0.0246	0.4809	0.4878	0.4952	0.5032	0.5118	0.5211	0.5312
16.7	−3.6423	0.5034	0.0246	0.4811	0.4880	0.4954	0.5034	0.5120	0.5213	0.5315
16.8	−3.6884	0.5036	0.0246	0.4814	0.4883	0.4957	0.5036	0.5122	0.5215	0.5317
16.9	−3.7345	0.5038	0.0246	0.4816	0.4885	0.4959	0.5038	0.5124	0.5218	0.5320
17	−3.7806	0.5041	0.0246	0.4819	0.4887	0.4961	0.5041	0.5127	0.5220	0.5322
17.1	−3.8267	0.5043	0.0245	0.4821	0.4890	0.4963	0.5043	0.5129	0.5222	0.5325
17.2	−3.8729	0.5045	0.0245	0.4824	0.4892	0.4966	0.5045	0.5131	0.5225	0.5327
17.3	−3.9190	0.5047	0.0245	0.4826	0.4895	0.4968	0.5047	0.5133	0.5227	0.5330
17.4	−3.9651	0.5050	0.0245	0.4829	0.4897	0.4970	0.5050	0.5136	0.5229	0.5332
17.5	−4.0112	0.5052	0.0245	0.4831	0.4899	0.4973	0.5052	0.5138	0.5232	0.5335
17.6	−4.0574	0.5054	0.0244	0.4834	0.4902	0.4975	0.5054	0.5140	0.5234	0.5337
17.7	−4.1035	0.5057	0.0244	0.4836	0.4904	0.4977	0.5057	0.5143	0.5236	0.5340
17.8	−4.1496	0.5059	0.0244	0.4839	0.4907	0.4980	0.5059	0.5145	0.5239	0.5342
17.9	−4.1957	0.5061	0.0244	0.4841	0.4909	0.4982	0.5061	0.5147	0.5241	0.5345
18	−4.2050	0.5062	0.0244	0.4842	0.4910	0.4983	0.5062	0.5148	0.5242	0.5346

Table VI. NHB Girls

Age (years)	LMS Curves			Percentiles						
	L	M	S	3rd	10th	25th	50th	75th	90th	97th
2	2.2765	0.5573	0.0253	0.5281	0.5380	0.5478	0.5573	0.5666	0.5757	0.5846
2.1	2.2616	0.5563	0.0253	0.5271	0.5371	0.5468	0.5563	0.5656	0.5747	0.5836
2.2	2.2467	0.5553	0.0253	0.5262	0.5361	0.5458	0.5553	0.5646	0.5737	0.5826
2.3	2.2318	0.5543	0.0254	0.5252	0.5351	0.5448	0.5543	0.5636	0.5726	0.5816
2.4	2.2168	0.5533	0.0254	0.5243	0.5342	0.5438	0.5533	0.5625	0.5716	0.5805
2.5	2.2019	0.5523	0.0254	0.5233	0.5332	0.5428	0.5523	0.5615	0.5706	0.5795
2.6	2.1870	0.5513	0.0254	0.5224	0.5322	0.5419	0.5513	0.5605	0.5696	0.5785
2.7	2.1721	0.5503	0.0254	0.5215	0.5313	0.5409	0.5503	0.5595	0.5686	0.5775
2.8	2.1572	0.5493	0.0254	0.5205	0.5303	0.5399	0.5493	0.5585	0.5676	0.5764
2.9	2.1422	0.5483	0.0254	0.5196	0.5294	0.5389	0.5483	0.5575	0.5665	0.5754
3	2.1273	0.5473	0.0254	0.5186	0.5284	0.5380	0.5473	0.5565	0.5655	0.5744
3.1	2.1123	0.5463	0.0254	0.5177	0.5274	0.5370	0.5463	0.5555	0.5645	0.5734
3.2	2.0974	0.5454	0.0254	0.5168	0.5265	0.5360	0.5454	0.5545	0.5635	0.5724
3.3	2.0824	0.5444	0.0255	0.5159	0.5256	0.5351	0.5444	0.5535	0.5625	0.5714
3.4	2.0675	0.5434	0.0255	0.5149	0.5246	0.5341	0.5434	0.5526	0.5615	0.5704
3.5	2.0525	0.5425	0.0255	0.5140	0.5237	0.5332	0.5425	0.5516	0.5606	0.5694
3.6	2.0375	0.5415	0.0255	0.5131	0.5228	0.5322	0.5415	0.5506	0.5596	0.5684
3.7	2.0225	0.5405	0.0255	0.5122	0.5218	0.5313	0.5405	0.5497	0.5586	0.5674
3.8	2.0075	0.5396	0.0255	0.5113	0.5209	0.5303	0.5396	0.5487	0.5576	0.5665
3.9	1.9925	0.5387	0.0255	0.5104	0.5200	0.5294	0.5387	0.5477	0.5567	0.5655
4	1.9774	0.5377	0.0255	0.5095	0.5191	0.5285	0.5377	0.5468	0.5557	0.5645
4.1	1.9624	0.5368	0.0255	0.5087	0.5182	0.5276	0.5368	0.5459	0.5548	0.5636
4.2	1.9473	0.5359	0.0256	0.5078	0.5173	0.5267	0.5359	0.5450	0.5539	0.5627
4.3	1.9322	0.5350	0.0256	0.5070	0.5165	0.5258	0.5350	0.5440	0.5530	0.5617
4.4	1.9172	0.5341	0.0256	0.5061	0.5156	0.5249	0.5341	0.5431	0.5520	0.5608
4.5	1.9020	0.5332	0.0256	0.5053	0.5147	0.5241	0.5332	0.5423	0.5511	0.5599
4.6	1.8869	0.5324	0.0256	0.5045	0.5139	0.5232	0.5324	0.5414	0.5503	0.5590
4.7	1.8718	0.5315	0.0256	0.5036	0.5131	0.5224	0.5315	0.5405	0.5494	0.5581
4.8	1.8566	0.5306	0.0256	0.5028	0.5122	0.5215	0.5306	0.5396	0.5485	0.5573
4.9	1.8414	0.5298	0.0256	0.5020	0.5114	0.5207	0.5298	0.5388	0.5477	0.5564
5	1.8262	0.5290	0.0256	0.5013	0.5106	0.5199	0.5290	0.5380	0.5468	0.5556
5.1	1.8110	0.5282	0.0257	0.5005	0.5098	0.5191	0.5282	0.5371	0.5460	0.5547
5.2	1.7958	0.5274	0.0257	0.4997	0.5091	0.5183	0.5274	0.5363	0.5452	0.5539
5.3	1.7806	0.5266	0.0257	0.4990	0.5083	0.5175	0.5266	0.5355	0.5444	0.5531
5.4	1.7653	0.5258	0.0257	0.4982	0.5076	0.5167	0.5258	0.5348	0.5436	0.5523
5.5	1.7500	0.5250	0.0257	0.4975	0.5068	0.5160	0.5250	0.5340	0.5428	0.5515
5.6	1.7347	0.5243	0.0257	0.4968	0.5061	0.5153	0.5243	0.5332	0.5420	0.5508
5.7	1.7194	0.5236	0.0257	0.4961	0.5054	0.5145	0.5236	0.5325	0.5413	0.5500
5.8	1.7041	0.5228	0.0257	0.4954	0.5047	0.5138	0.5228	0.5318	0.5406	0.5493
5.9	1.6887	0.5221	0.0257	0.4948	0.5040	0.5131	0.5221	0.5310	0.5398	0.5486
6	1.6733	0.5214	0.0258	0.4941	0.5033	0.5124	0.5214	0.5303	0.5391	0.5479
6.1	1.6579	0.5208	0.0258	0.4935	0.5027	0.5118	0.5208	0.5297	0.5385	0.5472
6.2	1.6425	0.5201	0.0258	0.4928	0.5020	0.5111	0.5201	0.5290	0.5378	0.5465
6.3	1.6270	0.5194	0.0258	0.4922	0.5014	0.5105	0.5194	0.5283	0.5371	0.5458
6.4	1.6115	0.5188	0.0258	0.4916	0.5008	0.5098	0.5188	0.5277	0.5365	0.5452
6.5	1.5960	0.5182	0.0258	0.4910	0.5002	0.5092	0.5182	0.5271	0.5358	0.5445
6.6	1.5805	0.5176	0.0258	0.4904	0.4996	0.5086	0.5176	0.5264	0.5352	0.5439
6.7	1.5649	0.5170	0.0258	0.4899	0.4990	0.5080	0.5170	0.5258	0.5346	0.5433
6.8	1.5493	0.5164	0.0258	0.4893	0.4984	0.5075	0.5164	0.5253	0.5340	0.5427
6.9	1.5337	0.5158	0.0259	0.4888	0.4979	0.5069	0.5158	0.5247	0.5335	0.5422
7	1.5181	0.5153	0.0259	0.4883	0.4974	0.5064	0.5153	0.5241	0.5329	0.5416
7.1	1.5024	0.5147	0.0259	0.4877	0.4968	0.5058	0.5147	0.5236	0.5324	0.5411
7.2	1.4867	0.5142	0.0259	0.4873	0.4963	0.5053	0.5142	0.5231	0.5318	0.5405
7.3	1.4710	0.5137	0.0259	0.4868	0.4958	0.5048	0.5137	0.5225	0.5313	0.5400
7.4	1.4553	0.5132	0.0259	0.4863	0.4953	0.5043	0.5132	0.5220	0.5308	0.5395
7.5	1.4395	0.5127	0.0259	0.4858	0.4949	0.5038	0.5127	0.5216	0.5303	0.5390
7.6	1.4237	0.5123	0.0259	0.4854	0.4944	0.5034	0.5123	0.5211	0.5299	0.5386
7.7	1.4079	0.5118	0.0259	0.4850	0.4940	0.5029	0.5118	0.5206	0.5294	0.5381
7.8	1.3920	0.5114	0.0260	0.4845	0.4935	0.5025	0.5114	0.5202	0.5290	0.5377
7.9	1.3761	0.5109	0.0260	0.4841	0.4931	0.5021	0.5109	0.5198	0.5285	0.5372
8	1.3602	0.5105	0.0260	0.4837	0.4927	0.5017	0.5105	0.5194	0.5281	0.5368
8.1	1.3443	0.5101	0.0260	0.4834	0.4923	0.5013	0.5101	0.5190	0.5277	0.5364
8.2	1.3283	0.5098	0.0260	0.4830	0.4920	0.5009	0.5098	0.5186	0.5273	0.5360
8.3	1.3124	0.5094	0.0260	0.4827	0.4916	0.5005	0.5094	0.5182	0.5270	0.5357
8.4	1.2964	0.5090	0.0260	0.4823	0.4913	0.5002	0.5090	0.5178	0.5266	0.5353
8.5	1.2803	0.5087	0.0260	0.4820	0.4909	0.4998	0.5087	0.5175	0.5263	0.5350
8.6	1.2643	0.5084	0.0261	0.4817	0.4906	0.4995	0.5084	0.5172	0.5259	0.5347
8.7	1.2482	0.5080	0.0261	0.4814	0.4903	0.4992	0.5080	0.5169	0.5256	0.5344

(*continued*)

Table VI. Continued

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
8.8	1.2321	0.5078	0.0261	0.4811	0.4900	0.4989	0.5078	0.5166	0.5253	0.5341
8.9	1.2159	0.5075	0.0261	0.4808	0.4897	0.4986	0.5075	0.5163	0.5251	0.5338
9	1.1998	0.5072	0.0261	0.4806	0.4895	0.4984	0.5072	0.5160	0.5248	0.5335
9.1	1.1836	0.5069	0.0261	0.4803	0.4892	0.4981	0.5069	0.5158	0.5245	0.5333
9.2	1.1674	0.5067	0.0261	0.4801	0.4890	0.4979	0.5067	0.5155	0.5243	0.5331
9.3	1.1511	0.5065	0.0261	0.4799	0.4888	0.4976	0.5065	0.5153	0.5241	0.5329
9.4	1.1348	0.5063	0.0262	0.4797	0.4886	0.4974	0.5063	0.5151	0.5239	0.5327
9.5	1.1185	0.5061	0.0262	0.4795	0.4884	0.4972	0.5061	0.5149	0.5237	0.5325
9.6	1.1022	0.5059	0.0262	0.4793	0.4882	0.4970	0.5059	0.5147	0.5235	0.5323
9.7	1.0859	0.5057	0.0262	0.4792	0.4880	0.4969	0.5057	0.5145	0.5233	0.5321
9.8	1.0695	0.5056	0.0262	0.4790	0.4879	0.4967	0.5056	0.5144	0.5232	0.5320
9.9	1.0531	0.5054	0.0262	0.4789	0.4877	0.4966	0.5054	0.5142	0.5231	0.5319
10	1.0366	0.5053	0.0262	0.4787	0.4876	0.4964	0.5053	0.5141	0.5229	0.5318
10.1	1.0202	0.5052	0.0262	0.4786	0.4875	0.4963	0.5052	0.5140	0.5228	0.5317
10.2	1.0037	0.5051	0.0263	0.4785	0.4874	0.4962	0.5051	0.5139	0.5227	0.5316
10.3	0.9872	0.5050	0.0263	0.4784	0.4873	0.4961	0.5050	0.5138	0.5227	0.5315
10.4	0.9706	0.5049	0.0263	0.4784	0.4872	0.4960	0.5049	0.5137	0.5226	0.5314
10.5	0.9541	0.5048	0.0263	0.4783	0.4871	0.4960	0.5048	0.5137	0.5225	0.5314
10.6	0.9375	0.5048	0.0263	0.4783	0.4871	0.4959	0.5048	0.5136	0.5225	0.5314
10.7	0.9208	0.5047	0.0263	0.4782	0.4870	0.4959	0.5047	0.5136	0.5225	0.5313
10.8	0.9042	0.5047	0.0263	0.4782	0.4870	0.4958	0.5047	0.5136	0.5224	0.5313
10.9	0.8875	0.5047	0.0263	0.4782	0.4870	0.4958	0.5047	0.5135	0.5224	0.5313
11	0.8708	0.5047	0.0264	0.4781	0.4870	0.4958	0.5047	0.5135	0.5224	0.5314
11.1	0.8541	0.5047	0.0264	0.4781	0.4870	0.4958	0.5047	0.5135	0.5224	0.5314
11.2	0.8373	0.5047	0.0264	0.4782	0.4870	0.4958	0.5047	0.5136	0.5225	0.5314
11.3	0.8205	0.5047	0.0264	0.4782	0.4870	0.4958	0.5047	0.5136	0.5225	0.5315
11.4	0.8037	0.5047	0.0264	0.4782	0.4870	0.4958	0.5047	0.5136	0.5226	0.5315
11.5	0.7869	0.5048	0.0264	0.4782	0.4870	0.4959	0.5048	0.5137	0.5226	0.5316
11.6	0.7700	0.5048	0.0264	0.4783	0.4871	0.4959	0.5048	0.5137	0.5227	0.5317
11.7	0.7532	0.5049	0.0264	0.4783	0.4871	0.4960	0.5049	0.5138	0.5227	0.5317
11.8	0.7362	0.5049	0.0265	0.4784	0.4872	0.4960	0.5049	0.5139	0.5228	0.5318
11.9	0.7193	0.5050	0.0265	0.4785	0.4873	0.4961	0.5050	0.5139	0.5229	0.5319
12	0.7023	0.5051	0.0265	0.4785	0.4873	0.4962	0.5051	0.5140	0.5230	0.5320
12.1	0.6853	0.5052	0.0265	0.4786	0.4874	0.4963	0.5052	0.5141	0.5231	0.5322
12.2	0.6683	0.5053	0.0265	0.4787	0.4875	0.4964	0.5053	0.5142	0.5232	0.5323
12.3	0.6513	0.5054	0.0265	0.4788	0.4876	0.4965	0.5054	0.5143	0.5233	0.5324
12.4	0.6342	0.5055	0.0265	0.4789	0.4877	0.4966	0.5055	0.5144	0.5235	0.5326
12.5	0.6171	0.5056	0.0265	0.4790	0.4878	0.4967	0.5056	0.5146	0.5236	0.5327
12.6	0.6000	0.5057	0.0266	0.4791	0.4879	0.4968	0.5057	0.5147	0.5237	0.5329
12.7	0.5829	0.5058	0.0266	0.4792	0.4880	0.4969	0.5058	0.5148	0.5239	0.5330
12.8	0.5657	0.5060	0.0266	0.4794	0.4882	0.4970	0.5060	0.5150	0.5240	0.5332
12.9	0.5486	0.5061	0.0266	0.4795	0.4883	0.4972	0.5061	0.5151	0.5242	0.5333
13	0.5314	0.5062	0.0266	0.4796	0.4884	0.4973	0.5062	0.5153	0.5243	0.5335
13.1	0.5142	0.5064	0.0266	0.4798	0.4886	0.4974	0.5064	0.5154	0.5245	0.5337
13.2	0.4969	0.5065	0.0266	0.4799	0.4887	0.4976	0.5065	0.5156	0.5247	0.5339
13.3	0.4797	0.5067	0.0266	0.4801	0.4888	0.4977	0.5067	0.5157	0.5249	0.5341
13.4	0.4624	0.5068	0.0267	0.4802	0.4890	0.4979	0.5068	0.5159	0.5250	0.5343
13.5	0.4451	0.5070	0.0267	0.4803	0.4891	0.4980	0.5070	0.5161	0.5252	0.5344
13.6	0.4278	0.5072	0.0267	0.4805	0.4893	0.4982	0.5072	0.5162	0.5254	0.5346
13.7	0.4105	0.5073	0.0267	0.4807	0.4895	0.4983	0.5073	0.5164	0.5256	0.5348
13.8	0.3932	0.5075	0.0267	0.4808	0.4896	0.4985	0.5075	0.5166	0.5258	0.5351
13.9	0.3758	0.5077	0.0267	0.4810	0.4898	0.4987	0.5077	0.5168	0.5260	0.5353
14	0.3585	0.5078	0.0267	0.4811	0.4899	0.4988	0.5078	0.5169	0.5262	0.5355
14.1	0.3411	0.5080	0.0267	0.4813	0.4901	0.4990	0.5080	0.5171	0.5263	0.5357
14.2	0.3237	0.5082	0.0268	0.4815	0.4903	0.4992	0.5082	0.5173	0.5265	0.5359
14.3	0.3063	0.5084	0.0268	0.4817	0.4904	0.4994	0.5084	0.5175	0.5267	0.5361
14.4	0.2888	0.5086	0.0268	0.4818	0.4906	0.4995	0.5086	0.5177	0.5270	0.5363
14.5	0.2714	0.5087	0.0268	0.4820	0.4908	0.4997	0.5087	0.5179	0.5272	0.5365
14.6	0.2539	0.5089	0.0268	0.4822	0.4910	0.4999	0.5089	0.5181	0.5274	0.5368
14.7	0.2365	0.5091	0.0268	0.4824	0.4911	0.5001	0.5091	0.5183	0.5276	0.5370
14.8	0.2190	0.5093	0.0268	0.4825	0.4913	0.5002	0.5093	0.5185	0.5278	0.5372
14.9	0.2015	0.5095	0.0268	0.4827	0.4915	0.5004	0.5095	0.5187	0.5280	0.5374
15	0.1840	0.5097	0.0269	0.4829	0.4917	0.5006	0.5097	0.5189	0.5282	0.5377
15.1	0.1665	0.5099	0.0269	0.4831	0.4919	0.5008	0.5099	0.5191	0.5284	0.5379
15.2	0.1490	0.5101	0.0269	0.4833	0.4921	0.5010	0.5101	0.5193	0.5286	0.5381
15.3	0.1315	0.5103	0.0269	0.4834	0.4922	0.5012	0.5103	0.5195	0.5288	0.5383
15.4	0.1139	0.5104	0.0269	0.4836	0.4924	0.5014	0.5104	0.5197	0.5291	0.5386
15.5	0.0964	0.5106	0.0269	0.4838	0.4926	0.5015	0.5106	0.5199	0.5293	0.5388

(*continued*)

Table VI. Continued

	LMS Curves			Percentiles						
Age (years)	L	M	S	3rd	10th	25th	50th	75th	90th	97th
15.6	0.0789	0.5108	0.0269	0.4840	0.4928	0.5017	0.5108	0.5201	0.5295	0.5390
15.7	0.0613	0.5110	0.0269	0.4842	0.4930	0.5019	0.5110	0.5203	0.5297	0.5393
15.8	0.0438	0.5112	0.0270	0.4844	0.4932	0.5021	0.5112	0.5205	0.5299	0.5395
15.9	0.0262	0.5114	0.0270	0.4845	0.4933	0.5023	0.5114	0.5207	0.5301	0.5397
16	0.0087	0.5116	0.0270	0.4847	0.4935	0.5025	0.5116	0.5209	0.5304	0.5400
16.1	−0.0089	0.5118	0.0270	0.4849	0.4937	0.5027	0.5118	0.5211	0.5306	0.5402
16.2	−0.0264	0.5120	0.0270	0.4851	0.4939	0.5029	0.5120	0.5213	0.5308	0.5404
16.3	−0.0440	0.5122	0.0270	0.4853	0.4941	0.5031	0.5122	0.5215	0.5310	0.5407
16.4	−0.0615	0.5124	0.0270	0.4855	0.4943	0.5033	0.5124	0.5217	0.5312	0.5409
16.5	−0.0791	0.5126	0.0270	0.4857	0.4945	0.5034	0.5126	0.5219	0.5314	0.5411
16.6	−0.0966	0.5128	0.0271	0.4859	0.4947	0.5036	0.5128	0.5221	0.5317	0.5414
16.7	−0.1142	0.5130	0.0271	0.4860	0.4948	0.5038	0.5130	0.5223	0.5319	0.5416
16.8	−0.1317	0.5132	0.0271	0.4862	0.4950	0.5040	0.5132	0.5225	0.5321	0.5419
16.9	−0.1493	0.5134	0.0271	0.4864	0.4952	0.5042	0.5134	0.5228	0.5323	0.5421
17	−0.1668	0.5136	0.0271	0.4866	0.4954	0.5044	0.5136	0.5230	0.5325	0.5423
17.1	−0.1844	0.5138	0.0271	0.4868	0.4956	0.5046	0.5138	0.5232	0.5328	0.5426
17.2	−0.2020	0.5140	0.0271	0.4870	0.4958	0.5048	0.5140	0.5234	0.5330	0.5428
17.3	−0.2195	0.5142	0.0271	0.4872	0.4960	0.5050	0.5142	0.5236	0.5332	0.5430
17.4	−0.2371	0.5144	0.0271	0.4874	0.4962	0.5052	0.5144	0.5238	0.5334	0.5433
17.5	−0.2546	0.5146	0.0272	0.4876	0.4964	0.5054	0.5146	0.5240	0.5336	0.5435
17.6	−0.2722	0.5148	0.0272	0.4877	0.4965	0.5056	0.5148	0.5242	0.5339	0.5437
17.7	−0.2898	0.5150	0.0272	0.4879	0.4967	0.5058	0.5150	0.5244	0.5341	0.5440
17.8	−0.3073	0.5152	0.0272	0.4881	0.4969	0.5059	0.5152	0.5246	0.5343	0.5442
17.9	−0.3249	0.5154	0.0272	0.4883	0.4971	0.5061	0.5154	0.5248	0.5345	0.5445
18	−0.3284	0.5154	0.0272	0.4883	0.4972	0.5062	0.5154	0.5249	0.5346	0.5445