

Body measurements of boys and girls from birth up to 16.9 years —

Part 1: Information in the form of tables

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- British Clothing Industry Association
- British Retailers Association
- Child Accident Prevention Trust
- Clothing and Footwear Institute
- Consumer Policy Committee of BSI
- Cooperative Wholesale Society Ltd.
- Drapers' Chamber of Trade
- Knitting Industries Federation Ltd.
- Mail Order Traders' Association
- Manchester Polytechnic (Hollings Faculty)
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- Retail Consortium
- Textile Distributors Association
- Textile Research Council

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Foreword

This Part of BS 7231 has been prepared under the direction of the Textiles and Clothing Standards Policy Committee.

This series of four size survey studies is published as phase one of a wider project and forms the basis for the preparation of Part 2 of the standard which gives recommendations in the form of tables of standard size charts for the direct use of garment manufacturers.

The four body measurement surveys were conducted in recent years by the HUMAG Research Group from the Department of Human Sciences, University of Technology, Loughborough. The subjects measured were boys from ages 5 to 16.0 years, girls from ages 5 to 16.9 years, children from ages 2 to 4.9 years and children from birth to 1.9 years. One or more of the surveys have been funded by the following organizations, plus generous financial support from the Department of Trade and Industry for the third and fourth surveys.

Asda — MFI Group plc
Babygro Ltd.
Andrew Baron Ltd.
Boots plc
BhS plc
C & A Modes
Castleblair Ltd.
D & H Cohen Ltd.
Courtaulds Contract Childrenswear Group
Debenhams plc
I J Dewhirst plc
Empire Stores
Freemans plc
S R Gent plc
Grattan plc
Great Universal Stores
John Lewis Partnership
The Littlewoods Organization plc
Marks & Spencer plc
F Miller Ltd.
The National Children's Wear Association of Great Britain and Northern Ireland
Nottingham Manufacturing Company plc
Pasolds Ltd.
R I Racke Ltd.
Saracen Ltd.
James Seddon UK Ltd.
Slimma Group Ltd.
Tesco plc
Clifford Williams & Sons Ltd.
F W Woolworth plc

The sample is representative, as far as possible, of the population of girls and boys in Great Britain. All racial groups were measured but it did not prove possible to measure a truly representative sample of the non-Caucasian population.

The sizing of clothes, particularly with respect to the design and specification of a range of ready-to-wear items, is basically a problem in applied anthropometry. At present only the designation of clothing sizes is standardized in BS 3666, BS 3728, BS 5511, BS 5592 and BS 6185.

This British Standard is only one form in which the data are available. Other means of providing the information are in the form of a floppy disk enabling users to process the data at will and by direct contact with Loughborough Consultants Ltd., University of Technology, Loughborough, Leics. LE11 3TF, Tel. 0509 222597, who will give advice on access to the data by arrangement.

The ISO definition for “infant” is not used in this British Standard, but the ISO height interval of 6 cm as used for labelling purposes is the basis of the tables relating to stature.

It is recognized that the schedules of measurements are not comprehensive, but there were limitations due to costs and the length of time to which individuals could be subjected to the measuring procedures.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to xvi, pages 1 to 258, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Section 1. Guide to use of data

1 Scope

This Part of BS 7231 gives information in the form of tables on body measurements of British boys and girls from birth up to the age of 16.9 years.

NOTE 1 The user should refer to section 4 in order to familiarize himself/herself with the precise descriptions and techniques of measurement.

NOTE 2 The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this British Standard the following definitions apply.

2.1

anterior (ventral)

toward the front

2.2

posterior (dorsal)

toward the back

2.3

medial

toward the midline of the body

2.4

lateral

toward the side of the body

2.5

proximal

toward the main mass of the body

2.6

distal

away from the main mass of the body

2.7

superior (cranial, cephalic)

toward the head, toward the top

2.8

inferior (caudal)

away from the head, toward the bottom

2.9

landmark

a prominent point of the skeleton that can be located under the skin by inspection and palpation

2.10

cervicale

the prominent bone at the base of the back of the neck (spinous process of the seventh cervical vertebra)

2.11

neckpoint

the points where the neck joins the shoulders in the mid-shoulder planes

2.12

bony shoulder (acromiale)

the outermost points that can be palpated along the spines of the shoulder blades (scapulae), with the arms hanging down

2.13**shoulder point (upper arm scye mark)**

the most prominent and usually highest point approximately 20 mm to 30 mm in from the marked acromiale, i.e. where the outer end of the collar bone (clavicle) meets the acromion (acromio-clavicular joint)

2.14**elbow**

the most prominent body protuberance of the elbow joint (olecranon process), when the subject's right hand is placed on the hip (fingers pointing forward, thumb pointing back)

2.15**wrist (ulna point)**

the most distal point of the ulna bone (wrist end) outside of the fore-arm with the right hand placed on the hip, as for the elbow

2.16**wrist crease (thenar eminence)**

the thickened, muscular portion of the hand forming the base of the thumb

2.17**metacarpophalangeal crease**

the flexion crease of the right middle finger where the palmar base of the finger meets the palm of the hand

2.18**hip**

the point of the maximum hip circumference in a horizontal plane

2.19**knee crease**

the point, in the mid-line, of the popliteal crease in the back of the right knee under normal weightbearing

2.20**tibiale**

the point at the upper inside (medial) edge on the head of the tibial bone of the right lower leg

2.21**axilla**

the armpit

NOTE The anterior axillary fold is formed by the pectoralis major muscle (muscle over the breast region), while the posterior axillary fold consists primarily of the latissimus dorsi muscle (back of the shoulder blade) extending from the lumbar vertebra to the humerus (upper arm).

3 Application of data

3.1 General information about survey tables

Every set of measurements, e.g. height, can be divided into 100 imaginary equal parts. Each one of these parts is called a "centile", also known as a "percentile"

The tables in this standard generally list 5th, 25th, 50th (median), 75th and 95th centile.

Consider Table S45 as an example. This tabulates stature(height) of boys aged 5 to 16 against chest girth.

Line 6 gives values for 134 cm height measuring 305 boys ranging from 131.0 to 136.9 cm approximately, 80 % of whom were aged between 7.9 and 11.1 years.

The 5th centile chest girth is 59.95 cm, 50th (median) is 63.9 cm and 95th is 70.5 cm. Thus approximately 90 % of boys (275) in this height range have chest circumference between 59.5 cm and 70.5 cm. Half the boys (152) had chests smaller than 63.9 cm and the other half were larger.

When analysing size surveys it is generally more representative to use the median rather than the mean(average) because it is much less affected by a few exceptionally small or exceptionally large measurements.

For example, suppose the heights of eleven 10-year-old boys (aged between 10.0 and 10.9 years) were measured and found to be 115 cm, 116 cm, 121 cm, 135 cm, 137 cm, 138 cm, 139 cm, 139 cm, 141 cm, 143 cm and 158 cm.

The median height of this sample is 138 cm, whereas the average height is the sum of all the measurements divided by 11, equalling 134.7 cm.

If, however, by chance, another two short boys were selected and measured at 114 cm and 117 cm, the median height is now 137 cm but the average falls to 131.8 cm. In each case, the median gives a much better picture of the most likely height of a large number of 10-year-old boys.

It is convenient to classify body measurement into two main groups as follows;

- a) circumferential or girth measurements.
- b) vertical and length measurements.

When selecting “to fit” body measurements for garment design it is generally good practice to select girth measurements at median value (50th centile) or just above but length measurements at 75th centile or above because:

- a) It is easy to shorten garments but almost impossible to reduce their girth;
- b) parents know that their children are growing rapidly taller/longer so if in doubt they will always tend to buy the next longest size. This means that the garments are automatically large in girth and will remain very loose until the child grows considerably older.

If, however, the garment is sized differently, then different criteria may govern the choice of centile.

3.2 Interpretation of survey data

All the surveys are anthropometric in that body measurements are accurately described (see section 4) to be reproduced by trained observers over a wide range of children. However, measurements have been selected so that information required by garment designers and pattern technicians for garment sizing can be used directly or derived from these measurements, combined with experience or experiment.

When interpreting the data, it is essential to refer to the precise description of each measurement for boys and for girls. For technical reasons some descriptions may be slightly different for boys than for girls.

For garment sizing, the technician may need to apply personal corrections based on experience or experiment. For example, the method of neck girth measurement in the survey may be different from that habitually used by some technicians. Also all vertical measurements to the ground are on barefoot subjects; corrections should be applied for lengths of garments worn with footwear.

If the method of measurement defined in the survey is unfamiliar, the recommended procedure is to select a number of children in the approximate age range and proceed as follows:

- a) measure each child according to the survey description (see section 4);
- b) measure each child according to the method normally used by the technician;
- c) Calculate differences (plus or minus), if any;
- d) prepare a table of corrections to be applied to the published survey value to obtain equivalent “practical” value. Experience may enable the technician to correct some survey measurements without applying stages a), b) and c).

The table of corrections might be in the form suggested below:

<i>Sex</i>	<i>Age range</i>	<i>Measurement</i>	<i>Survey method value</i>	<i>My method value</i>	<i>Corrections to be applied (+ or -)</i>
F	yrs 7–9	Neck base girth (25)	cm 29.7	cm 30.6	cm + 0.9

Thus the survey data can all be corrected to values for “practical” measurements.

The following stages can then be applied:

- a) choose a garment for sizing analysis, e.g. a boy’s jacket;
- b) choose the key dimension for design and labelling. This will probably be the weight or height measurements given in Part 2 of this standard;
- c) decide on the upper and lower limits of the range of sizes based on key dimensions;

- d) examine the corrected centiles of relevant measurements over the selected range;
- e) decide on the number of sizes to have in the range;
- f) use the corrected survey data to determine the “to fit” body dimensions for each size in the range;
- g) apply the appropriate tolerance/ease to each dimension.

A table of garment dimensions can then be used to construct the garment patterns.

In more complex cases, it will be necessary to use a trial and error procedure to fix the number of sizes in a range to provide the required fit for a specified percentage of potential customers.

4 Calculation of results

4.1 Corrections for 1988 population profile

In order to increase the usefulness of the surveys the data tables have been corrected to reflect the projected number of British children in each age group in 1988 (Figure 1, Figure 2 and Figure 3).

This has been done by weighting the numbers in each age group assuming that, for the purpose of data required for garment sizing, the secular change is not significant. For example, this assumes that the 6-year-old boys measured in 1978 will, in 1988, have grown to the same size as equivalent 16-year-old boys in 1978.

The numerical correction is calculated as follows.

In 1978, 284 boys aged 11 years, i.e. 11 years to 11.9 years, were measured out of a total group of 3428 of 5.0 to 16.9-year-old boys (Table 1).

NOTE This represented 8.28 % of the total age group.

In 1988 the projection is for 318,000 boys aged 11 years out of a total group of 4,252,000 (Table 2 and Figure 2).

NOTE This represents 7.48 % of the total age group.

Therefore, in all tables, based on 1988 projections, the content of 11-year-old boys in the 1978 survey must be reduced by a factor of $\frac{7.48}{8.28} = 0.90$.

Each age group is adjusted where appropriate.

Using the same technique it is possible to recompute any data table to correspond with the projected number of children in any age group in any future year where census projections are available.

Table 1 — Boys' sample (details by age)

Age	Caucasian	All ethnic groups
years		
5.0 to 5.9	250	254
6.0 to 6.9	340	349
7.0 to 7.9	324	334
8.0 to 8.9	319	333
9.0 to 9.9	321	337
10.0 to 10.9	348	357
11.0 to 11.9	284	298
12.0 to 12.9	325	347
13.0 to 13.9	288	319
14.0 to 14.9	267	279
15.0 to 15.9	227	288
16.0 to 16.9	85	90
Total	3 428	3 585

4.2 Age limits for boys and girls

Because of the age limits of the subjects measured, i.e. 5.0 to 16.9 years, the range in years set out in column 4 of the relevant tables is restricted to the survey age limits, lower and upper. Using Table 34 as an example, however, there are many girls less than 5 years old with a chest girth of 51 cm and there are many women, older than 17 years, with a bust girth of 81 cm.

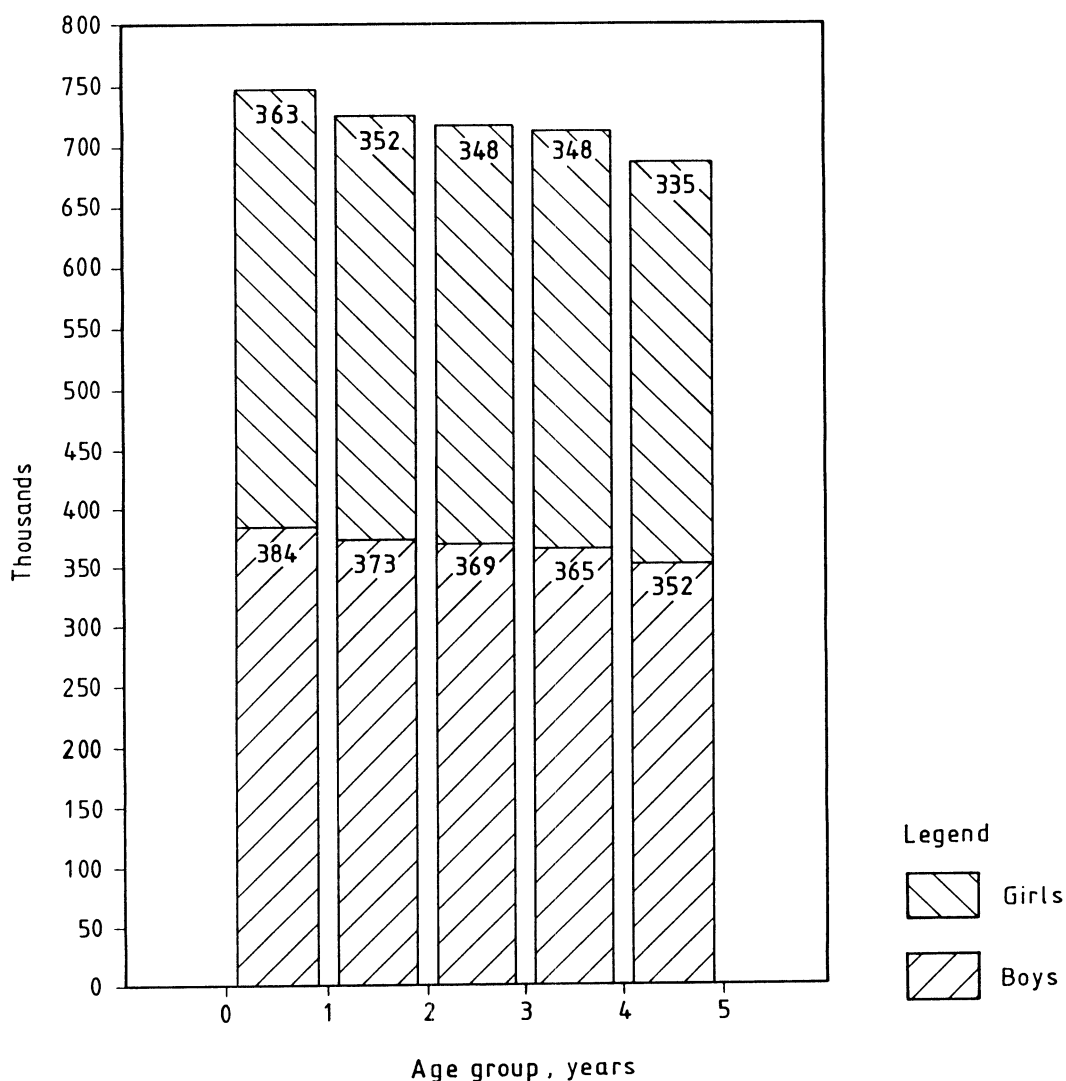


Figure 1 — British baby and infant survey OPCS 1988 population projections

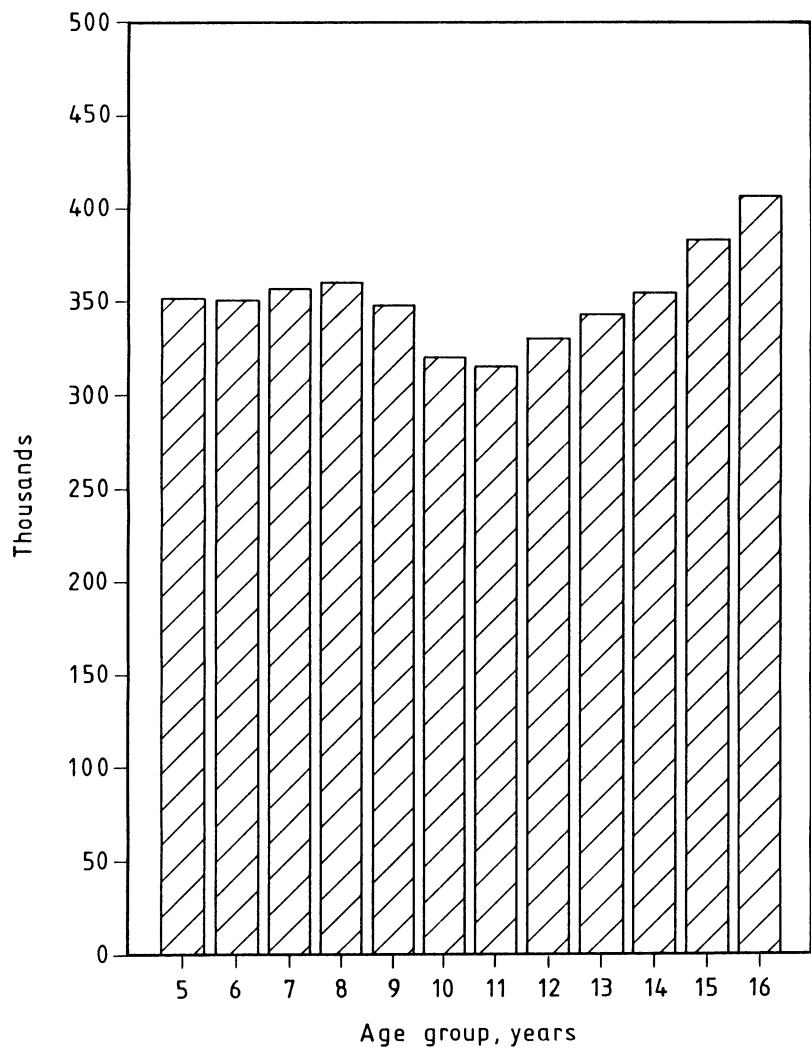


Figure 2 — British boys aged 5 to 16 OPCS 1988 population projections

Table 2 — The projected mid-1988 British population of boys aged 5 to 16

Age group	British population
yrs	thousands
5 to 5.9	354
6 to 6.9	354
7 to 7.9	360
8 to 8.9	362
9 to 9.9	350
10 to 10.9	322
11 to 11.9	318
12 to 12.9	333
13 to 13.9	345
14 to 14.9	358
15 to 15.9	386
16 to 16.9	410
	4 252

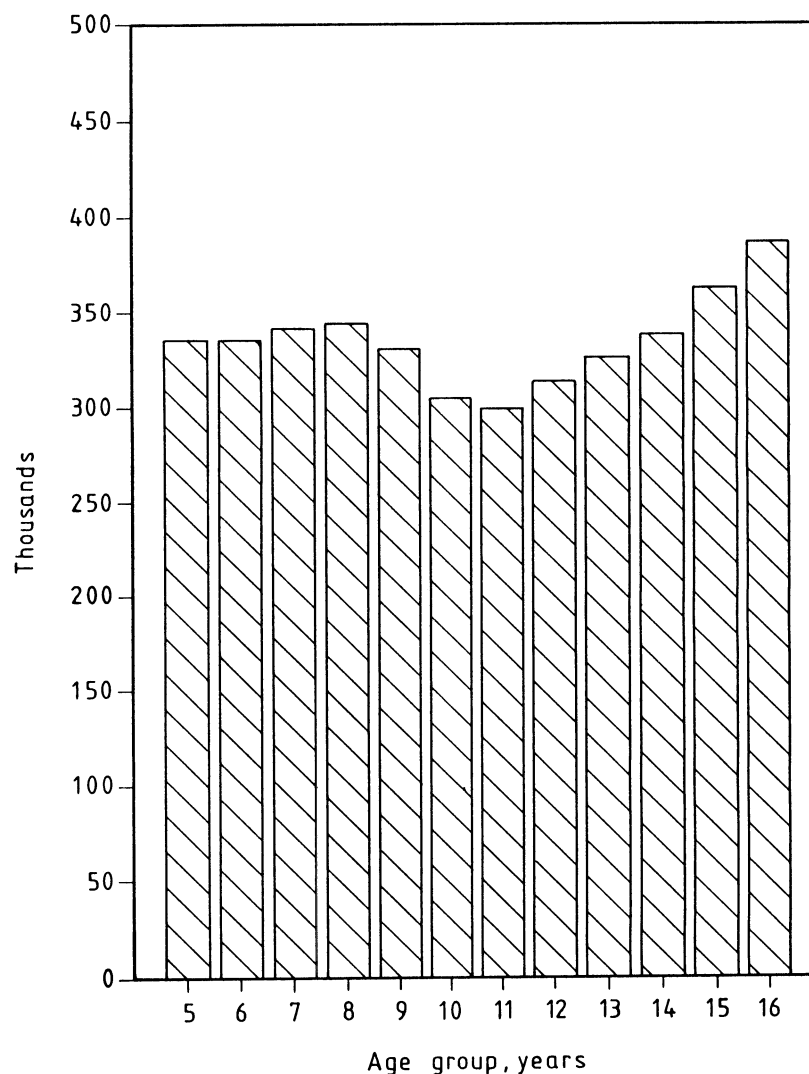


Figure 3 — British girls aged 5 to 16 OPCS 1988 population projections

5 Interpretation of statistics used

5.1 Mean ($\bar{x}$). This is the sum of the values (Σx) of a measurement divided by the number (N) of values, i.e. the conventional “average”.

$$\bar{x} = \frac{\Sigma x}{N}$$

5.2 Variance (S^2). This is the sum of the squared deviations from the mean divided by $N-1$.

$$S^2 = \frac{\Sigma (x - \bar{x})^2}{N - 1}$$

5.3 Standard deviation (s). This reflects the spread of the same measurement. The standard deviation offers a quick way of assessing the range of data around the mean, providing the distribution of data is known to be normal (see percentiles). The variability of different distributions may be compared in terms of the standard deviation.

$$s = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N - 1}}$$

In a normal distribution approximately 66 % of the values fall within one standard deviation from the mean and 95 % fall within two standard deviations from the mean. Less than 1 % of the values fall outside three standard deviations from the mean.

5.4 Normal distribution. Measurements are said to be normally distributed when one can expect values to cluster around either side of the mean and expect progressively fewer values as one looks further from the mean. This is typically represented by a bell-shaped curve. Many anthropometric measurements follow such a pattern, e.g. stature, but others do not, e.g. weight. The normal distribution is sometimes called gaussian.

5.5 Median. The median (or 50th centile) is that value, or potential value, in a range of values, above and below which half (50 %) of the values fall. In general the median is preferred as an indicator of the middle of a distribution if there are extreme or outlying values which might unduly distort the mean.

The median is based on the ranking of results rather than their precise value.

5.6 Centiles (X_p). Centiles are a generalization of the median. Whereas the median indicates the point at which 50 % of the results lie below (or above), centiles refer to other percentage points. For example, the 25th and 75th centile refer to points below which 25 % and 75 %, respectively, of the values lie. These two centiles are also called quartiles.

Another use of centiles is in defining the common limits of a range or distribution of value. If the maximum and minimum are likely to be rather extreme, the 95th and 5th centile will indicate the limits of 90 % of the data, i.e. excluding the upper and lower 5 %. This is particularly appropriate to meeting sizing goals.

Knowing the mean (x) and standard deviation(s) of any normal distribution we may calculate the value X_p of any percentile we choose by the equation:

$$X_p = x + Zs$$

Z is a constant taken from reference tables.

5.7 Skewness. A distribution is said to be skewed when it is not normal gaussian. Distributions can be negatively or positively skewed. When skewness is zero the distribution is perfectly bell-shaped or normal. If the result is positive the majority of values are to the right side of the mode. If negative, the majority are to the left. Direction and magnitude of the skew can be determined mathematically.

Section 2. General information

6 Sampling

6.1 Babies and infants

6.1.1 Sample size. The sample size was determined by the requirement to estimate the population mean stature (supine length below 2 years of age) for each age group to within ± 1 cm of the true population mean. The age groups, are those shown in Table 3. The numbers needed increase as the variation in length becomes greater as shown by the standard deviation taken from Tanner, Whitehouse and Takaishi (1966). The numbers required also depend on the precision of measurement. In fact, the numbers shown in the final column of Table 3 were doubled, in case a subsequent user required either girls' only or boys' only data. The target numbers shown in Table 3 were doubled, so that the boys' and girls' data could be separated by the user without loss of precision ($940 \times 2 = 1\,880$).

The total sample size was determined by these methods so as to represent the population structure of babies and infants (0–5 years) in 1988. The Office of Population and Census Statistics (OPCS) projections of the 1985 population were used to extrapolate to 1988 (Figure 1), giving an age stratified sample of the same total size for the survey. This stratified sample was spread as evenly as possible across the age ranges covered by the survey compatible with cost effective sampling.

Further, the sample size was increased by 5 % to permit separation of non-Caucasian data and by 1 % for eradication of bad data, giving a target of 2 000 children.

6.1.2 Sample composition. To obtain a truly random sample of a population is always difficult. Given the huge spread of the British population the cost of a truly random selection would have been prohibitive in terms of time and cash. Further, "self-selection" may occur as the option not to help, by refusing permission for a child to be measured, is ever present and a right.

Consequently, the sample was drawn from a wide area of Great Britain, the specific locations being selected to provide a good balance between cost and sampling requirements. The requirements included: a wide spread of location, an urban/rural mix, a mix of socio-economic status families and ethnic groupings in proportion to their representation in the British population.

With so many constraints, the sample covered all these aspects well. There is no evidence that any of the factors were perfectly accounted for in the sample nor is there evidence that any slight imperfection which remained affected the data in any systematic or meaningful way. The aim was that the total sample should reflect the national picture.

6.2 Boys

6.2.1 Sample size. The required sample size was established on simple statistical grounds from available information about the variation in size of British boys at different ages. It was shown that a sample of 300 boys of age 8 years would estimate the mean stature in the population with a standard error of 0.3 cm, i.e. with a 95 % probability that the true population mean would be within ± 0.6 cm of the estimated mean. For measurement of dimensions smaller than stature, the standard deviation, and hence the standard error at a given sample size, will usually be less, although the information available is insufficient for a precise estimate to be made in most cases. However, if we take sitting height as an example, it can be shown that a sample of 300 boys of age 8 years (randomly selected) will estimate the mean sitting height of the population at that age to within 95 % confidence limits of ± 0.28 cm. Sitting height was used in this calculation because its standard deviation is known. This information was not available for any of the linear dimensions, other than stature, used in this survey.

Table 3 — Sample numbers for babies and infants

Age divisions	Stature	Number	1988 projections	Age stratified sample numbers	Target numbers
Yrs	Standard deviation	95 % probability	Thousands		
0.01 to 0.078	2.00	16	—	—	40
0.08 to 0.248	2.16	19	—	—	40
0.25 to 0.498	2.34	22	747	144	40
0.50 to 0.748	2.52	26	—	—	40
0.75 to 0.998	2.69	29	—	—	40
1.00 to 1.248	2.85	33	—	—	50
1.25 to 1.498	3.01	37	725	140	50
1.50 to 1.748	3.15	40	—	—	50
1.75 to 1.998	3.30	44	—	—	50
2.00 to 2.49	3.57	51	717	138	90
2.50 to 2.99	3.83	59	—	—	90
3.00 to 3.49	4.07	67	713	138	90
3.50 to 3.99	4.30	74	—	—	90
4.00 to 4.49	4.52	82	687	132	90
4.50 to 4.99	4.74	90	—	—	90
Totals		689	3 589	692 ^a	940 ^b
^a 692 is greater (cf 689), since it is not possible to measure “fractions” of a child. ^b 940 is greater still, since a sufficiently large sample is needed to enable a geographical spread of children to be measured. Reference: Tanner, Whitehouse and Takaishi (1966).					

6.2.2 Sample composition. The criteria, specified by the sponsors, that formed the basis for sampling, were as follows:

- geographical regions of the U.K. (Northern Ireland excepted) were represented approximately in proportion to their populations;
- the sample was taken in not more than 15 centres in predominantly urban areas;
- the sample was of sufficient size to estimate the value of a given measurement of boys of a given stature to within 1 cm of the true population mean;
- socio-economic criteria were to be disregarded.

The measured sample was designed to comprise approximately 300 children in each age group over a range of 5.0 years to 16.0 years. A total sample of about 3 300 provided the most economical basis for achieving the accuracy required in this study. In the event, 3 585 boys were measured between 5.0 and 16.9 years, of whom 3 428 were Caucasian. The remainder belonged to a variety of ethnic groups.

Measurement of knee height was decided upon after the survey had commenced and, accordingly, 1 651 subjects were recorded.

Details of the sample are given in Table 1 and Table 4.

Data analysis was restricted to Caucasian boys and cleaned of a few obvious anomalies caused by recording errors.

6.2.3 Data for 16-year-old boys. During the survey 85 Caucasian boys, aged 16 years to 16.9 years, were measured. This group is outside the planned scope of the survey and was included because of the need to measure complete classes in the schools. The group is incompatible with the requirements of this survey in terms of accuracy.

However, the number measured compares favourably with the sub-groups in the 1978/79 Wira men's pilot survey, which effectively stops at the age of 17 years.

6.3 Girls

6.3.1 Sample size. The sample size was determined by the requirement to estimate the population mean stature of each yearly age group to within 1 cm of the true mean. This depends on the precision of measurement and the variability in each group and is larger in older girls. The number required was 4 500 good, usable sets of Caucasian data. The sample size was increased by 5 % to allow for separation of non-Caucasian data and by 1 % for bad data, giving a total of 4 770.

Table 4 — Boys' sample (details by stature)

Stature (Height)	Number of subjects (All measurements taken except knee height)	Number of Subjects (Measured at knee height)
cm		
100 to 104.9	17	9
105 to 109.9	97	39
110 to 114.9	217	113
115 to 119.9	263	133
120 to 124.9	280	131
125 to 129.9	303	162
130 to 134.9	299	149
135 to 139.9	334	151
140 to 144.9	136	145
145 to 149.9	279	145
150 to 154.9	239	104
155 to 159.9	195	88
160 to 164.9	177	82
165 to 169.9	159	84
170 to 174.9	118	62
175 to 179.9	80	37
180 to 184.9	22	12
185 to 189.9	13	5
Total	3 408	1 651

6.3.2 Sample composition. Initially, sample size and composition was determined as described in 6.3.1. However, this was changed in order to achieve a sample that would represent the population structure of girls aged 5 years to 16 years in mid-1988 as obtained by extrapolation of the OPCS projections of the 1985 population (see Figure 3). The total sample size was kept the same. The numbers then required in each age group are shown in Table 5.

7 Clothing effects

7.1 Babies and infants

The children in nappies were measured naked, as were all children in the baby group of < 2 years. Those out of nappies were measured in their underpants only, i.e. the infant group of > 2 years. A few infants in their third year would have been in nappies, but the necessary information from which it would be possible to test the effect on these data of measuring naked compared to measuring in underwear is not available. If any such influence was present, only three measurements would be influenced: numbers 60, 68 and 70, crotch arc, hip girth and inside leg respectively.

In any case, clothing designed to accommodate either disposable nappies or terries will need allowances greater than any possible effect created by the causes discussed here.

Table 5 — The projected mid-1988 British population of girls aged 5 to 16

Age group	British population	Sample size ^a	Number required in each centre ^b
(Yrs)	(thousands)		
5 to 5.9	335.4	401	19
6 to 6.9	334.8	400	19
7 to 7.9	314.2	376	18
8 to 8.9	345.5	413	20
9 to 9.9	330.1	395	19
10 to 10.9	304.3	364	17
11 to 11.9	298.9	357	17
12 to 12.9	313.3	375	18
13 to 13.9	325.9	390	19
14 to 14.9	337.6	404	19
15 to 15.9	362.1	433	21
16 to 16.9	386.4	462	22
	3 988.5	4 770	228
^a Method of calculation is as follows: e.g. for 5 to 5.9 years, $\text{Sample size} = \frac{335.4 \times 10^3 \times 4770}{3998.5 \times 10^3} = 401$ ^b Based on 21 centres			

7.2 Girls

The state of dress was categorized into four groups, namely underwear, leotards, swimwear and others, and coded for analysis. There were no significant differences between those girls who wore swimwear and leotards. The data were next analysed between leotard and underwear. For all age groups 79.3 % of the girls were measured in their underwear, which in some subjects was physical education knickers and bikini tops, and 20.7 % wore leotards. Some age groups, i.e. 6 and 12 years, showed that age change was significant and therefore this alone would represent a difference; where this occurred no further analysis was useful. Overall there were 7.4 % significant changes of which 5.2 % were in a positive direction, i.e. underwear means tended to be greater than leotard means for a limited number of age measurement combinations. However, there was no consistent evidence of differences caused by this clothing factor across any one primary measurement.

8 Measuring techniques

8.1 All surveys

Skin marks were made on the body at the sites described in the list of body surface landmarks (see section 4). Most of these marks were made over a prominent point of the skeleton that can be located under the skin by inspection or firm palpation. They were marked using thick black or brown eyeliners/water soluble felt tipped pens or, in subjects where their undergarments obscured sites, coloured 5 mm adhesive spots or tailor's chalk.

In babies and infants the prominent points are often less obvious than in older children/adults, being softer and more cartilaginous and covered by proportionally more soft, sub-cutaneous fatty tissue.

To facilitate the measuring of the neck base girth a “chainette” was placed around and over the skin marks and clipped in position. The “chainettes” were made up from 0.5 m lengths of plug chains which had 3 mm steel balls flexibly joined at 2 mm intervals and at one end a miniature “crocodile” clip with a PVC cover. Also, elasticated cords were placed in position at the axillary fold and marked waist level in order to define, as accurately as possible, these levels and facilitate other measures which utilized these landmarks. The cords were made up from 1.25 m lengths of hat elastic, of 1.25 mm diameter, with a grooved plastic fastener at one end.

Most of the girls in the study wore underwear/swimwear/leotards during the measuring and the remainder wore a variety of clothing ranging from physical education kit, i.e. skirts/knickers and blouses/vests, to ski pants and buttoned long-sleeved T-shirts.

8.2 Babies and infants

Babies were measured naked with nappy removed. Once out of nappies, all children were measured in underpants and barefoot.

All measurements were taken on the right-hand side where applicable. In all measures care was taken to avoid tissue compression. For babies (0 years to 2 years) the measurements were taken with the child supine on the infantometer when necessary and either supine on a changing mat or held appropriately for measurements with a tape or free anthropometer. For infants (2 years to 5 years) the measurements were taken with the child standing erect on a hard surface (or being held in the appropriate posture for a few at the young end of the range).

Clean, disposable tissue was placed beneath the child during measurement. An observer assisted the measurer in most measurements to check the posture and, with gentle support and/or restraint, to help maintain the necessary posture.

Special care was taken over posture when measurements involving the trunk and shoulders were being made.

Section 3. The data

9 Tables of body measurements

NOTE 1 Table 6 identifies the abbreviations used in all surveys.

NOTE 2 Throughout the tables, measurement of weight is shown in kilograms; all other measurements are shown in centimetres.

NOTE 3 Throughout the tables, N is the number of measurements taken.

9.1 Baby and infant size survey (0 to 4.9 years)

9.1.1 Twelve Tables 7 to 18 show the data for each variable, grouped into 12 age ranges. The younger children are grouped in shorter age ranges, as growth is most rapid at these ages. These tables give the mean value, the standard deviations, skewness of the distributions, 5th, 25th, 50th (median), 75th and 95th centile values and the number of measurements. The numbers of any one table vary very slightly if a data point has been omitted, either in error or when it was unobtainable for some reason, e.g. arm in plaster, excess wriggling. Some variables are measured in a 10 % sample of subjects only; these are apparent from the number of subjects listed with statistics.

The centile data become progressively less reliable as the number of measurements fall. Where the number of measurements falls below 26, the 5th and 95th centiles are not shown and where the number falls below 16, only the median is shown. These “critical values” are somewhat arbitrary. Where the number of measurements is close to these critical values, less weight should be given to the precision of the outer centiles.

The measurements not made on babies, or conversely not made on infants, show as blanks in the relevant places in the tables.

9.1.2 Table 19 to Table 23 show the 5th, 25th, 50th, 75th and 95th centile values respectively against all the age groups for all the variables.

9.1.3 Table S1 to Table S38 show all variables on stature, the latter given in 11 discrete ranges from 50.0 cm to 55.9 cm up to 110.0 cm to 115.9 cm. Spaces on these tables occur for those variables only measured on either babies or the older infants. This applies to the tables described in **9.1.4** and **9.1.5**. The same “critical number” of data values has been applied as described earlier, so centiles are only shown where reliable.

9.1.4 Table C1 to Table C17 show the upper body variables on chest girth, the latter given in 11 discrete ranges from 31.3 cm to 33.7 cm up to 62.5 cm to 67.4 cm.

9.1.5 Table W1 to Table W10 show the lower body variables on waist girth, the latter given in 11 discrete ranges from 31.3 cm to 33.7 cm up to 62.5 cm to 67.4 cm.

9.2 Boys’ size survey (5.0 to 16.9 years)

9.2.1 All relevant tables are corrected for the projected population distribution in 1988 (see section 1).

9.2.2 Twelve tables numbered 24 to 35 summarize values for all measurements, including values for standard deviation, skewness and number of boys measured. The tabulation of 5th, 25th, 50th (median), 75th and 90th centiles of all 23 variables for the 12 yearly age groups 5.0 to 16.9 years gives an overall picture of each age group on a single page.

9.2.3 Five tables numbered 36 to 40 give the five centiles of all measurements for the 12 age groups. These tables show annual growth patterns of 90 % of British boys.

9.2.4 Twenty-two Tables S39 to S60 give all measurements against stature (height) in 6 cm intervals. This information is useful for designing garments, for younger boys, sized by height as the key dimension.

9.2.5 Sixteen Tables C18 to C33 give data for 16 measurements against chest girth as the key dimension. This information is useful for designing upper and whole body garments (tops) sized by chest girth, e.g. jackets and coats.

9.2.6 Eight Tables W11 to W18 give data for eight measurements against waist girth as the key dimension. This information is useful for designing lower body garments (bottoms) sized by waist girth, e.g. trousers and underwear.

Similar tables using hip girth or inside leg length as key dimensions can be computed as required.

9.2.7 Twelve Tables N1 to N12 give data for 12 measurements against mid-neck girth as the key dimension. This information is useful for designing garments sized by neck girth, e.g. shirts.

9.3 Girls' size survey (5.0 to 16.9 years)

9.3.1 Twelve tables numbered 41 to 52 summarize values for all measurements, including values for standard deviation, skewness and number of girls measured. The tabulation of 5th, 25th, 50th (median), 75th and 90th centiles of all 45 measured variables for the 12 yearly age groups 5.0 to 16.9 gives an overall picture of each age group on a single page.

9.3.2 Five tables numbered 53 to 57 give the five centiles of all measurements for the 12 age groups. These tables show annual growth patterns of 90 % of British girls.

9.3.3 Forty-four Tables S61 to S104 give all measurements against stature (height) in 6 cm intervals. This information is useful for designing garments for younger girls, sized by height as the key dimension.

9.3.4 Thirty-two Tables C34 to C65 give data for 32 measurements against chest/bust girth as the key dimensions. This information is useful for designing upper and whole body garments (tops) sized by chest girth, e.g. jackets and coats.

9.3.5 Thirteen Tables W19 to W31 give data for 13 measurements against waist girth as the key dimension. This information is useful for designing lower body garments (bottoms) sized by waist girth, e.g. skirts and slacks.

Similar tables using hip girth or inside leg length as key dimensions can be computed as required.

Table 6 — Key to the abbreviations used in all surveys

Data		Boys	Girls	Infants	Babies	Abbreviated as
00 Age	common	✓	✓	✓	✓	Age
01 Weight	common	✓	✓	✓	✓	BWgt
10 Stature	common	✓	✓	✓	✓	Stat
11 Crown-Crotch					✓	CwCr
12 Cervicale-Foot		✓	✓	✓		CeFt
20 Cervicale-Brow				✓	✓	CeBr
21 Head Arc				✓	✓	HdAr
22 Head Girth	Common	✓	✓	✓	✓	HdGr
23 Neck Girth (at larynx)			✓		✓	NkG(I)
24 Mid-Neck Girth		✓				MNGr
25 Neck Base Girth			✓	✓		NBGr
30 Short Shoulder Length			✓	✓		SSLe
31 Shoulder Length (to acromion)			d^c	✓	✓	SLLe
32 Arm Scye Length			✓			ASLe
33 Arm Scye Depth					✓	ASDe
34 Arm Scye Width						ASWd
35 Arm Scye Girth		✓	✓	✓		ASGr
36 Interacromion (bony shoulder width)		✓	✓	✓		InAc
37 Shoulder Breadth (fleshy)		✓	✓			ShBr
38 Shoulder Width					✓	ShWd
40 Axillary Width (back)		✓		✓	✓	AxW(bk)
41 Axillary Width (front)				✓	✓	AXW(fr)
42 Back Width			✓			BkWd
43 Chest Width			✓			ChWd
44 Chest Width (anthropometer)			✓			ChW(ap)
45 Bust Arc Width			✓			BAWd
46 Chest Girth	Common	✓	✓	✓	✓	ChGr
47 Under Bust Girth			✓			UBGr
48 Back Neck–Neck Point			✓			BNNP
49 Back Neck–Bust Point			✓			BNBP
50 Back Neck–Waist (also known as Back Neck-Front Waist)			✓	✓		BNWs
51 Front Neck–Waist			✓	✓		FNWs
52 Shoulder–Waist			✓			ShWs
53 Back Length (also known as Back Neck-Waist)			✓		✓	BkLe
54 Upper Torso Length		d				UTLe
55 Trunk Loop					✓	TkLo
60 Crotch Arc		✓	✓	✓		CrAr
61 Waist to Crotch		d			d	WsCr
62 Waist Width			✓			WsWd
63 Waist Girth	Common	✓	✓	✓	✓	WsGr
64 Side Seam			✓	✓		SdSm
65 Waist Height		✓			✓	WsHt
66 Waist–Hip			✓	✓		WsHp
67 High Hip Girth			✓			HHGr
68 Hip Girth	Common	✓	✓	✓	✓	HpGr
69 Hip Width			✓			HpWd
70 Inside Leg	Common	✓	✓	✓	d	InLg
71 Knee Height		✓	✓	✓		KnHt
72 Thigh Girth	Common	✓	✓	✓	✓	ThGr
73 Knee Girth			✓			KnGr
74 Ankle Girth			✓	✓	✓	AkGr
75 Foot Length				✓	✓	FtLe
80 Elbow Length		✓	✓	✓		EILe
81 Arm Length	Common	✓	✓	✓	✓	AmLe
82 Maximum Upper Arm Girth	Common	✓	✓	✓	✓	MUAG
83 Wrist Girth	Common	✓	✓	✓	✓	WrGr
90 Hand Girth			✓	✓		HnGr
91 Hand Width			✓			HnWd
92 Hand Length			✓	✓		HnLe
93 Middle Finger Length			✓			MFLe
94 Middle Finger Width			✓			MfWd

NOTE The particular age groups in which data were surveyed are identified above by ticks.

^c d = derived (calculated) measure.

Table 7 — Summary of measurements for ages 0.00 years up to (but not including) 0.25 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	0.11	0.07	0.25	0.0	0.0	0.1	0.2	0.2	163
01 Weight	4.51	1.03	0.20	2.9	3.7	4.5	5.2	6.0	163
10 Stature	55.77	4.08	− 0.14	49.4	53.0	56.1	58.7	61.6	163
11 Crown-Crotch	36.89	2.73	− 0.31	32.0	35.0	37.2	38.9	40.5	162
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	27.58	2.13	− 0.11	24.0	26.2	27.5	28.9	30.9	162
21 Head Arc	32.57	2.60	0.09	—	30.9	32.4	35.0	—	21
22 Head Girth	37.26	2.51	− 0.28	—	35.9	38.1	39.8	—	21
23 Neck Girth (at larynx)	21.11	1.85	0.08	18.0	19.8	21.0	22.4	23.9	163
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	4.82	0.60	0.40	3.9	4.4	4.7	5.1	5.8	162
33 Arm Scye Depth	3.99	0.47	0.10	3.2	3.6	3.9	4.3	4.7	163
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	17.32	1.74	0.00	14.2	16.2	17.3	18.2	20.4	163
40 Axillary Width (back)	14.64	1.36	0.11	12.4	13.7	14.6	15.4	16.8	163
41 Axillary Width (front)	13.71	1.52	0.06	11.1	12.5	13.5	14.7	16.1	163
46 Chest Girth	37.68	3.57	− 0.06	31.8	35.3	37.8	40.1	43.3	163
50 Back Neck–Waist	16.19	1.67	0.38	13.5	15.2	16.1	17.1	19.3	162
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	62.06	5.50	− 0.10	52.3	58.9	62.0	66.4	70.0	162
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	7.15	1.47	− 0.04	4.5	6.0	7.2	8.3	9.3	161
63 Waist Girth	35.61	3.67	− 0.22	29.7	33.2	36.0	38.2	41.4	163
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	26.05	2.49	0.04	21.9	24.1	26.2	27.8	30.0	162
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	34.50	4.34	0.22	27.9	31.6	33.9	37.7	41.9	162
70 Inside Leg	18.89	1.79	0.27	16.2	17.4	18.7	20.2	21.8	162
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	19.88	2.80	0.17	15.6	17.9	19.7	22.0	24.5	163
74 Ankle Girth	9.98	1.37	0.16	—	8.7	9.7	10.8	—	21
75 Foot Length	8.31	0.60	− 0.05	7.3	7.9	8.2	8.7	9.2	163
81 Arm Length	18.15	1.74	− 0.25	15.2	17.1	18.1	19.2	20.8	163
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	11.98	1.42.	− 0.19	9.5	11.0	12.0	12.9	14.0	162
83 Wrist Girth	8.92	1.04	0.34	—	8.1	8.8	9.8	—	21
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 8 — Summary of measurements for ages 0.25 years up to (but not including) 0.50 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	0.37	0.08	0.02	0.3	0.3	0.4	0.4	0.5	90
01 Weight	6.83	0.87	0.15	5.2	6.2	6.7	7.4	8.3	90
10 Stature	63.91	2.74	− 0.26	58.5	62.4	63.7	65.6	68.3	90
11 Crown-Crotch	41.66	1.62	− 0.33	38.8	40.7	41.6	42.8	44.2	90
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	31.45	1.40	0.46	29.1	30.4	31.3	32.3	33.6	90
21 Head Arc	36.97	1.18	− 1.53	—	—	37.2	—	—	13
22 Head Girth	42.46	1.55	0.24	—	—	42.4	—	—	13
23 Neck Girth (at larynx)	23.16	1.57	0.33	21.0	21.8	23.3	24.2	25.8	90
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	5.57	0.81	− 0.05	4.1	5.1	5.6	6.2	6.8	90
33 Arm Scye Depth	4.52	0.42	0.24	3.8	4.2	4.5	4.8	5.2	90
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	19.61	1.55	− 0.05	17.0	18.3	19.6	20.7	22.0	90
40 Axillary Width (back)	16.65	1.30	0.74	15.0	15.6	16.4	17.3	19.3	90
41 Axillary Width (front)	15.49	1.47	− 0.14	13.0	14.4	15.5	16.6	17.7	90
46 Chest Girth	43.38	2.37	0.22	39.1	42.1	43.2	44.9	47.1	90
50 Back Neck–Waist	18.06	1.52	− 0.39	15.6	17.2	18.2	19.0	19.8	90
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	70.46	3.47	0.05	65.3	68.0	70.3	72.6	76.2	90
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	8.78	1.36	0.05	6.6	7.8	8.7	9.8	11.1	90
63 Waist Girth	40.42	2.73	0.10	36.5	38.3	40.2	42.4	45.0	90
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	31.04	1.86	0.12	28.1	29.5	31.0	32.2	34.1	90
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	42.88	3.20	0.44	37.3	40.8	42.6	44.3	48.6	90
70 Inside Leg	22.25	1.65	− 0.08	19.8	21.1	22.2	23.1	24.8	90
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	25.17	2.58	0.46	21.1	23.4	25.0	26.5	29.3	90
74 Ankle Girth	12.16	1.23	0.15	—	—	12.0	—	—	13
75 Foot Length	9.27	0.53	− 0.48	8.3	9.0	9.3	9.6	10.1	90
81 Arm Length	21.06	1.43	− 0.01	18.8	20.0	21.1	22.0	23.3	90
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	14.41	1.13	0.59	12.6	13.7	14.3	15.0	16.4	90
83 Wrist Girth	10.25	1.20	1.23	—	—	10.1	—	—	13
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 9 — Summary of measurements for ages 0.50 years up to (but not including) 0.75 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	0.63	0.08	0.06	0.5	0.6	0.6	0.7	0.7	82
01 Weight	8.14	0.98	0.78	6.7	7.3	8.1	8.6	9.7	82
10 Stature	69.02	2.71	− 0.11	64.5	66.9	69.1	71.4	73.1	82
11 Crown-Crotch	44.30	1.74	0.06	41.3	43.2	44.1	45.7	47.1	82
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	33.22	1.36	0.36	31.2	32.2	33.2	34.2	35.6	82
21 Head Arc	39.86	3.13	− 0.11	—	—	39.3	—	—	7
22 Head Girth	45.06	2.57	0.30	—	—	44.5	—	—	7
23 Neck Girth (at larynx)	23.34	1.49	− 0.02	20.5	22.3	23.2	24.3	25.6	82
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	5.92	0.73	− 0.19	4.4	5.4	5.9	6.4	7.1	80
33 Arm Scye Depth	4.87	0.53	0.08	4.1	4.5	4.8	5.3	5.7	82
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	21.21	1.74	− 0.15	18.3	20.2	21.2	22.4	24.0	82
40 Axillary Width (back)	18.57	1.56	0.06	15.9	17.2	18.5	19.7	21.1	82
41 Axillary Width (front)	15.91	1.33	− 0.17	13.3	15.0	16.0	16.8	17.8	81
46 Chest Girth	45.74	2.40	0.41	42.0	44.1	45.8	47.2	49.5	82
50 Back Neck–Waist	19.06	1.49	0.25	16.5	18.0	19.0	20.1	21.2	82
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	74.31	3.46	0.38	69.4	71.5	73.9	76.7	79.8	81
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	9.70	1.62	0.09	6.8	8.6	9.6	10.9	12.5	82
63 Waist Girth	42.39	2.85	0.46	38.2	40.4	42.1	44.4	46.5	82
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	34.42	1.76	− 0.04	31.5	33.2	34.3	35.6	37.2	82
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	45.40	3.41	0.67	40.1	42.7	45.1	47.4	51.4	82
70 Inside Leg	24.71	1.66	− 0.09	21.9	23.5	24.8	25.9	27.1	82
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	26.62	2.57	0.82	23.2	24.4	26.0	28.3	31.0	82
74 Ankle Girth	13.37	0.60	− 0.13	—	—	13.3	—	—	7
75 Foot Length	10.13	0.51	0.53	9.3	9.8	10.1	10.4	11.0	81
81 Arm Length	22.78	1.57	0.23	20.3	21.7	22.8	23.9	25.2	82
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	15.15	1.26	0.61	13.4	14.3	15.0	15.9	17.2	82
83 Wrist Girth	10.96	0.59	0.63	—	—	10.6	—	—	7
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 10 — Summary of measurements for ages 0.75 years up to (but not including) 1.00 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	0.87	0.07	0.12	0.8	0.8	0.9	0.9	1.0	81
01 Weight	9.12	0.93	0.32	7.8	8.4	9.1	9.8	10.7	81
10 Stature	73.12	2.79	0.13	68.0	71.2	73.1	74.6	78.2	81
11 Crown-Crotch	46.02	1.84	0.05	42.9	44.5	46.0	47.2	49.3	81
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	34.40	1.59	0.63	32.0	33.3	34.2	35.2	37.4	81
21 Head Arc	42.09	1.74	− 0.09	—	—	42.3	—	—	10
22 Head Girth	47.38	1.42	0.06	—	—	47.6	—	—	10
23 Neck Girth (at larynx)	23.36	1.30	0.52	21.3	22.3	23.3	24.1	25.6	81
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	6.45	0.65	0.14	5.3	6.0	6.4	6.8	7.6	81
33 Arm Scye Depth	4.95	0.54	0.60	4.2	4.6	4.9	5.2	5.8	81
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	22.04	1.64	0.22	19.6	20.9	21.8	23.1	24.5	81
40 Axillary Width (back)	19.18	1.53	− 0.09	16.5	18.1	19.2	20.3	21.3	81
41 Axillary Width (front)	16.54	1.52	0.15	14.3	15.4	16.5	17.6	18.9	81
46 Chest Girth	47.06	1.72	0.07	44.1	46.0	47.0	48.3	50.1	81
50 Back Neck–Waist	19.99	1.52	− 0.09	17.4	18.6	20.0	21.1	22.5	81
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	76.46	3.14	0.23	71.9	73.6	76.6	78.7	81.5	81
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	9.96	1.38	− 0.06	7.6	9.0	10.1	10.7	12.4	81
63 Waist Girth	42.71	2.57	0.21	38.4	40.8	42.6	44.4	46.8	81
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	37.06	1.87	0.11	33.9	35.7	37.0	38.2	40.5	81
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	46.79	2.66	0.05	42.8	44.7	47.0	48.8	51.1	81
70 Inside Leg	27.10	1.73	0.23	24.2	25.8	26.9	28.1	30.7	81
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	27.11	2.07	0.31	24.0	25.7	26.9	28.2	30.8	81
74 Ankle Girth	13.91	0.57	0.22	—	—	13.8	—	—	10
75 Foot Length	10.77	0.62	0.19	9.8	10.3	10.7	11.3	11.8	81
81 Arm Length	24.41	1.77	0.06	21.9	23.0	24.2	25.8	27.2	81
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	15.67	1.00	0.36	14.0	15.0	15.7	16.2	17.3	81
83 Wrist Girth	11.52	0.50	0.31	—	—	11.4	—	—	10
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 11 — Summary of measurements for ages 1.00 years up to (but not including) 1.25 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	1.12	0.07	0.12	1.0	1.1	1.1	1.2	1.2	100
01 Weight	9.92	0.99	0.14	8.2	9.2	9.9	10.7	11.4	99
10 Stature	76.56	2.95	0.17	71.8	74.2	76.5	78.3	81.8	99
11 Crown-Crotch	47.83	2.00	0.00	44.4	46.5	48.0	49.0	50.8	98
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	35.30	1.80	0.25	32.3	33.9	35.2	36.7	38.3	100
21 Head Arc	41.96	1.85	− 0.36	—	—	41.8	—	—	14
22 Head Girth	46.54	2.11	− 0.73	—	—	46.6	—	—	14
23 Neck Girth (at larynx)	23.60	1.34	0.71	21.8	22.6	23.4	24.3	26.2	98
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	6.59	0.70	0.06	5.4	6.0	6.6	7.1	7.6	96
33 Arm Scye Depth	5.23	0.58	0.17	4.4	4.8	5.2	5.6	6.2	98
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	22.87	1.80	− 0.50	19.2	22.0	23.0	24.3	25.5	99
40 Axillary Width (back)	20.16	1.39	− 0.18	18.0	19.3	20.1	21.2	22.3	100
41 Axillary Width (front)	16.76	1.47	0.06	14.2	15.7	16.6	18.0	19.1	99
46 Chest Girth	48.55	2.06	− 0.16	44.6	47.3	48.7	49.9	52.1	99
50 Back Neck–Waist	21.09	1.62	− 0.03	18.5	19.9	21.1	22.2	23.4	99
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	78.57	3.52	0.03	72.9	75.6	78.6	80.9	84.1	99
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	10.73	1.76	− 0.15	7.5	9.7	10.8	11.9	13.5	97
63 Waist Girth	43.35	2.42	0.10	40.0	41.5	43.1	45.0	47.2	99
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	39.43	1.96	0.37	36.3	38.1	39.4	40.6	42.6	98
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	47.84	2.66	0.00	43.0	46.0	48.1	49.7	52.2	99
70 Inside Leg	28.70	1.74	0.23	25.7	27.7	28.8	29.6	31.6	98
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	27.85	2.07	− 0.03	24.0	26.6	27.8	29.2	31.0	99
74 Ankle Girth	13.96	0.89	0.29	—	—	13.7	—	—	14
75 Foot Length	11.44	0.71	− 0.05	10.3	10.9	11.4	11.9	12.5	99
81 Arm Length	25.67	1.65	0.01	23.2	24.5	25.5	26.7	28.2	99
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	16.03	1.12	− 0.22	13.9	15.2	16.1	16.8	17.7	99
83 Wrist Girth	11.42	1.03	0.81	—	—	11.0	—	—	14
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 12 — Summary of measurements for ages 1.25 years up to (but not including) 1.50 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	1.38	0.07	0.05	1.3	1.3	1.4	1.4	1.5	91
01 Weight	10.73	1.06	0.25	9.0	10.0	10.8	11.4	12.4	91
10 Stature	80.02	2.85	− 0.15	75.4	48.3	80.1	82.1	84.7	91
11 Crown-Crotch	49.45	1.81	− 0.15	46.2	48.5	49.4	50.6	52.3	91
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	36.58	1.75	0.14	33.6	35.5	36.6	37.4	39.3	91
21 Head Arc	45.28	1.80	− 0.15	—	—	45.0	—	—	6
22 Head Girth	47.40	1.54	0.10	—	—	47.0	—	—	6
23 Neck Girth (at larynx)	23.60	1.09	− 0.20	21.6	23.0	23.7	24.2	25.2	91
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	6.79	0.64	0.01	5.8	6.5	6.8	7.1	7.8	91
33 Arm Scye Depth	5.23	0.51	− 0.28	4.3	4.9	5.2	5.6	6.1	90
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	23.04	1.88	− 0.24	19.9	21.6	23.2	24.2	26.2	91
40 Axillary Width (back)	20.64	1.58	− 0.12	18.1	19.7	20.8	21.4	23.2	91
41 Axillary Width (front)	16.96	1.52	0.24	14.1	16.0	17.0	17.8	19.5	91
46 Chest Girth	49.55	2.20	− 0.02	46.1	47.8	49.9	51.0	52.8	91
50 Back Neck–Waist	22.07	1.32	− 0.07	19.8	21.2	22.1	23.0	24.2	91
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	80.24	3.58	− 0.06	73.5	77.9	80.5	82.8	85.6	90
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	11.09	1.37	− 0.12	9.0	10.5	11.0	11.9	13.4	90
63 Waist Girth	44.12	2.60	0.04	39.6	42.2	44.2	46.1	48.5	90
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	41.67	1.85	0.05	38.4	40.2	41.8	42.8	44.4	90
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	49.14	2.72	0.53	44.7	47.6	49.1	50.4	53.3	90
70 Inside Leg	30.57	1.73	− 0.38	27.6	29.4	30.7	31.6	33.4	91
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	28.53	1.99	0.33	25.5	27.1	28.2	30.0	32.1	90
74 Ankle Girth	14.28	0.96	− 0.18	—	—	13.8	—	—	6
75 Foot Length	11.97	0.61	− 0.01	10.9	11.6	12.0	12.5	12.8	91
81 Arm Length	26.77	1.76	0.04	24.0	25.6	26.8	27.9	29.7	91
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	16.12	1.14	0.79	14.5	15.4	16.0	16.6	17.9	91
83 Wrist Girth	11.25	1.12	− 0.14	—	—	10.8	—	—	6
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 13 — Summary of measurements for ages 1.50 years up to (but not including) 1.75 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	1.62	0.07	0.04	1.5	1.6	1.6	1.7	1.7	88
01 Weight	11.38	1.20	0.17	9.2	10.5	11.4	12.1	13.2	88
10 Stature	83.23	3.21	0.03	78.2	80.8	83.1	85.6	87.8	86
11 Crown-Crotch	50.98	1.99	0.15	47.7	49.5	51.1	52.3	54.3	86
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	37.34	1.98	− 0.14	33.7	35.8	37.2	39.0	40.2	87
21 Head Arc	45.67	1.32	− 0.32	—	—	45.2	—	—	12
22 Head Girth	49.26	1.70	− 0.14	—	—	49.0	—	—	12
23 Neck Girth (at larynx)	23.91	1.15	0.11	22.0	23.1	23.8	24.6	25.8	87
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	7.14	0.76	0.24	6.0	6.6	7.1	7.6	8.4	87
33 Arm Scye Depth	5.43	0.53	0.25	4.6	5.0	5.4	5.7	6.3	86
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	24.21	1.85	0.07	21.1	23.0	24.1	25.3	27.2	88
40 Axillary Width (back)	21.05	1.78	0.12	18.1	20.0	21.0	22.1	23.7	88
41 Axillary Width (front)	17.31	1.42	0.43	15.1	16.4	17.2	18.1	19.9	87
46 Chest Girth	50.44	2.18	0.18	46.9	48.6	50.4	51.9	53.7	87
50 Back Neck–Waist	22.93	1.53	0.26	20.2	22.0	22.8	23.8	25.2	87
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	82.05	3.90	0.00	75.6	79.3	82.0	85.1	88.2	85
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	11.75	1.41	1.04	10.1	10.7	11.5	12.6	13.8	84
63 Waist Girth	44.41	2.69	0.23	39.2	42.9	44.4	45.8	48.4	87
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	43.90	1.89	− 0.24	41.0	42.7	44.0	45.1	46.8	85
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	50.02	3.46	0.11	43.9	47.8	50.1	51.9	55.1	86
70 Inside Leg	32.24	2.13	− 0.46	28.9	30.8	32.3	33.8	35.3	86
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	29.10	2.42	0.13	25.1	27.0	29.2	30.4	33.0	87
74 Ankle Girth	15.31	1.38	0.53	—	—	14.9	—	—	12
75 Foot Length	12.46	0.67	− 0.32	11.4	12.0	12.4	12.9	13.5	87
81 Arm Length	27.54	1.57	0.11	24.9	26.4	27.6	28.4	29.9	87
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	16.63	1.18	0.69	14.5	15.5	16.2	17.0	18.4	88
83 Wrist Girth	12.09	1.19	0.80	—	—	11.4	—	—	12
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 14 — Summary of measurements for ages 1.75 years up to (but not including) 2.00 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	1.87	0.07	0.04	1.8	1.8	1.9	1.9	2.0	98
01 Weight	11.94	1.39	− 0.17	9.4	11.2	11.9	12.8	14.2	98
10 Stature	85.49	3.52	− 0.08	80.2	83.3	85.4	87.9	91.1	98
11 Crown-Crotch	51.72	2.02	0.12	48.7	50.1	51.7	53.0	55.3	97
12 Cervicale-Foot	—	—	—	—	—	—	—	—	—
20 Cervicale-Brow	37.70	1.97	− 0.43	33.7	36.5	37.9	38.9	40.4	98
21 Head Arc	45.80	2.19	0.24	—	—	45.2	—	—	10
22 Head Girth	48.27	2.42	0.35	—	—	47.4	—	—	10
23 Neck Girth (at larynx)	23.83	1.10	0.00	21.8	23.1	23.8	24.5	25.7	95
25 Neck Base Girth	—	—	—	—	—	—	—	—	—
30 Short Shoulder Length	—	—	—	—	—	—	—	—	—
31 Shoulder Length (to acromion)	7.25	0.87	0.18	6.0	6.7	7.1	7.8	8.9	98
33 Arm Scye Depth	5.37	0.48	0.07	4.7	5.0	5.3	5.7	6.1	96
35 Arm Scye Girth	—	—	—	—	—	—	—	—	—
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	—
38 Shoulder Width	24.61	1.95	− 0.07	21.0	23.2	24.5	26.1	27.9	98
40 Axillary Width (back)	21.57	1.61	− 0.20	18.5	20.6	21.5	22.7	24.0	98
41 Axillary Width (front)	17.57	1.64	− 0.30	14.9	16.3	17.8	18.9	19.9	97
46 Chest Girth	50.95	2.36	− 0.17	46.8	49.2	50.9	52.6	54.6	97
50 Back Neck–Waist	23.21	1.49	0.04	20.4	22.2	23.1	24.2	25.5	97
51 Front Neck–Waist	—	—	—	—	—	—	—	—	—
55 Trunk Loop	83.42	4.13	− 0.06	76.3	80.3	83.5	86.5	90.0	96
60 Crotch Arc	—	—	—	—	—	—	—	—	—
61 Waist to Crotch	11.48	1.50	0.25	9.2	10.4	11.2	12.5	14.0	96
63 Waist Girth	45.05	2.84	0.25	40.7	43.1	44.9	47.2	49.1	98
64 Side Seam	—	—	—	—	—	—	—	—	—
65 Waist Height	45.21	2.49	0.00	41.3	43.5	44.9	46.9	49.6	96
66 Waist–Hip	—	—	—	—	—	—	—	—	—
68 Hip Girth	50.29	3.46	− 0.01	44.4	48.0	50.2	52.5	55.9	98
70 Inside Leg	33.72	2.09	0.01	30.2	32.2	33.6	35.3	36.5	97
71 Knee Height	—	—	—	—	—	—	—	—	—
72 Thigh Girth	29.12	2.49	0.08	25.4	27.3	29.0	30.7	33.1	98
74 Ankle Girth	14.29	0.80	0.59	—	—	14.3	—	—	10
75 Foot Length	12.86	0.75	− 0.02	11.7	12.3	12.8	13.4	14.0	97
81 Arm Length	28.46	1.54	− 0.13	25.8	27.3	28.4	29.8	30.7	98
80 Elbow Length	—	—	—	—	—	—	—	—	—
82 Maximum Upper Arm Girth	16.34	1.36	0.24	14.1	15.4	16.4	17.3	18.5	98
83 Wrist Girth	11.37	1.02	0.82	—	—	11.0	—	—	10
90 Hand Girth	—	—	—	—	—	—	—	—	—
92 Hand Length	—	—	—	—	—	—	—	—	—

Table 15 — Summary of measurements for ages 2.00 years up to (but not including) 2.50 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	2.28	0.15	− 0.19	2.0	2.1	2.3	2.4	2.5	164
01 Weight	12.82	1.56	0.25	10.1	11.8	12.7	13.8	15.3	164
10 Stature	88.31	3.89	− 0.33	81.7	85.7	88.4	91.3	94.4	164
11 Crown-Crotch	—	—	—	—	—	—	—	—	—
12 Cervicale-Foot	70.50	3.41	− 0.48	65.0	68.5	70.4	73.1	75.3	164
20 Cervicale-Brow	39.14	1.74	0.00	—	38.2	38.7	40.1	—	20
21 Head Arc	46.36	2.12	0.22	—	45.1	45.7	47.8	—	20
22 Head Girth	49.47	1.35	0.44	—	48.2	49.1	50.5	—	20.
23 Neck Girth (at larynx)	—	—	—	—	—	—	—	—	—
25 Neck Base Girth	24.79	1.32	0.34	22.8	24.0	24.7	25.5	27.1	163
30 Short Shoulder Length	5.01	0.60	0.28	4.1	4.6	5.0	5.4	6.1	164
31 Shoulder Length (to acromion)	7.73	0.86	− 0.15	6.3	7.1	7.8	8.3	9.0	164
33 Arm Scye Depth	—	—	—	—	—	—	—	—	—
35 Arm Scye Girth	22.40	1.51	0.19	20.0	21.4	22.3	23.4	24.8	164
36 Interacromion (bony shoulder width)	21.36	1.28	0.11	19.3	20.5	21.4	22.1	23.5	164
38 Shoulder Width	—	—	—	—	—	—	—	—	—
40 Axillary Width (back)	21.34	1.54	0.12	18.8	20.3	21.4	22.2	24.0	164
41 Axillary Width (front)	18.78	1.42	0.13	16.5	17.6	18.9	19.8	21.3	164
46 Chest Girth	50.45	2.46	0.17	46.2	49.0	50.4	52.0	54.4	164
50 Back Neck–Waist	22.54	1.46	0.42	20.5	21.6	22.4	23.2	25.2	164
51 Front Neck–Waist	21.83	1.50	0.41	19.5	20.9	21.8	22.6	24.1	163
55 Trunk Loop	—	—	—	—	—	—	—	—	—
60 Crotch Arc	38.17	2.85	0.04	33.5	36.7	38.1	39.7	42.6	162
61 Waist to Crotch	—	—	—	—	—	—	—	—	—
63 Waist Girth	47.65	2.87	0.20	42.6	45.7	47.5	49.6	52.4	164
64 Side Seam	48.91	2.66	− 0.12	44.5	47.3	49.0	50.6	52.9	163
65 Waist Height	—	—	—	—	—	—	—	—	—
66 Waist–Hip	11.89	1.33	0.19	9.8	11.1	11.9	12.8	14.1	163
68 Hip Girth	50.24	3.12	− 0.06	44.8	48.2	50.1	52.6	55.2	163
70 Inside Leg	34.99	2.14	− 0.05	31.3	33.5	35.0	36.3	38.4	164
71 Knee Height	21.04	1.20	− 0.47	—	20.1	21.4	21.7	—	20
72 Thigh Girth	29.07	2.41	0.72	25.6	27.4	28.9	30.3	33.4	164
74 Ankle Girth	14.79	0.95	0.97	—	14.0	14.4	15.2	—	20.
75 Foot Length	13.78	0.64	0.46	—	13.2	13.6	14.1	—	20
81 Arm Length	30.25	1.82	− 0.23	27.1	29.1	30.3	31.2	33.1	164
80 Elbow Length	17.32	0.97	0.46	—	16.4	17.2	18.1	—	20
82 Maximum Upper Arm Girth	16.64	0.96	0.23	—	16.1	16.4	17.2	—	20
83 Wrist Girth	11.32	0.73	0.43	—	11.0	11.2	11.4	—	20
90 Hand Girth	12.25	0.58	0.90	—	11.9	12.2	12.5	—	20.
92 Hand Length	10.14	0.48	− 0.82	—	9.8	10.1	10.5	—	20

Table 16 — Summary of measurements for ages 2.50 years up to (but not including) 3.00 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	2.74	0.14	0.07	2.5	2.6	2.7	2.8	3.0	140
01 Weight	14.14	1.61	0.01	11.5	13.0	14.1	15.5	16.4	140
10 Stature	92.85	3.71	− 0.20	86.4	89.9	93.2	95.2	98.4	140
11 Crown-Crotch	—	—	—	—	—	—	—	—	—
12 Cervicale-Foot	74.52	3.34	0.01	69.2	72.0	74.6	76.8	80.1	140
20 Cervicale-Brow	40.57	2.01	− 0.32	—	—	40.7	—	—	15
21 Head Arc	48.04	1.29	0.11	—	—	47.9	—	—	15
22 Head Girth	50.17	1.29	− 0.05	—	—	50.3	—	—	15
23 Neck Girth (at larynx)	—	—	—	—	—	—	—	—	—
25 Neck Base Girth	25.55	1.24	0.41	23.6	24.6	25.4	26.5	27.2	140
30 Short Shoulder Length	5.31	0.64	0.37	4.3	4.9	5.3	5.7	6.5	140
31 Shoulder Length (to acromion)	8.13	0.86	− 0.13	6.5	7.6	8.1	8.7	9.7	140
33 Arm Scye Depth	—	—	—	—	—	—	—	—	—
35 Arm Scye Girth	23.31	1.45	− 0.08	21.0	22.3	23.2	24.4	25.6	139
36 Interacromion (bony shoulder width)	22.16	1.30	− 0.17	19.8	21.2	22.2	23.1	24.1	140
38 Shoulder Width	—	—	—	—	—	—	—	—	—
40 Axillary Width (back)	22.23	1.76	− 0.16	19.2	21.1	22.3	23.3	24.8	140
41 Axillary Width (front)	19.38	1.49	0.18	17.1	18.2	19.3	20.2	22.0	140
46 Chest Girth	51.81	2.46	0.25	48.0	50.0	51.9	53.5	56.2	140
50 Back Neck–Waist	23.18	1.39	0.30	20.9	22.2	23.2	24.0	25.8	140
51 Front Neck–Waist	22.42	1.43	0.02	20.1	21.5	22.4	23.4	24.7	140
55 Trunk Loop	—	—	—	—	—	—	—	—	—
60 Crotch Arc	40.25	2.66	0.25	36.2	38.3	40.1	42.2	44.6	140
61 Waist to Crotch	—	—	—	—	—	—	—	—	—
63 Waist Girth	48.98	2.88	0.24	44.5	46.8	48.8	51.2	53.5	140
64 Side Seam	52.13	2.89	− 0.38	47.7	50.1	52.2	54.3	56.3	139
65 Waist Height	—	—	—	—	—	—	—	—	—
66 Waist–Hip	12.58	1.63	− 0.26	9.6	11.6	12.6	13.5	15.0	139
68 Hip Girth	52.48	3.11	0.16	48.0	50.2	52.4	54.8	57.4	140
70 Inside Leg	37.44	2.14	− 0.33	33.9	35.8	37.6	39.2	40.5	140
71 Knee Height	22.75	1.50	− 1.08	—	—	23.0	—	—	15
72 Thigh Girth	30.38	2.57	0.14	26.5	28.7	30.1	32.5	34.5	139
74 Ankle Girth	15.17	0.87	0.13	—	—	15.0	—	—	15
75 Foot Length	14.71	0.68	0.06	—	—	14.6	—	—	15
81 Arm Length	31.87	1.56	− 0.17	29.0	30.8	31.9	33.0	34.2	140
80 Elbow Length	18.15	1.18	0.53	—	—	17.8	—	—	15
82 Maximum Upper Arm Girth	16.81	1.42	0.46	—	—	16.6	—	—	15
83 Wrist Girth	11.61	0.75	0.05	—	—	11.5	—	—	15
90 Hand Girth	12.61	0.52	− 0.84	—	—	12.8	—	—	15
92 Hand Length	10.71	0.56	0.45	—	—	10.6	—	—	15

Table 17 — Summary of measurements for ages 3.00 years up to (but not including) 4.00 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	3.52	0.28	0.00	3.1	3.3	3.5	3.7	4.0	342
01 Weight	15.80	2.12	1.43	12.9	14.4	15.7	16.8	19.3	341
10 Stature	98.70	4.32	0.02	91.3	95.9	99.0	101.4	105.1	342
11 Crown-Crotch	—	—	—	—	—	—	—	—	—
12 Cervicale-Foot	79.68	3.82	0.03	73.2	77.1	80.0	82.0	85.7	342
20 Cervicale-Brow	40.24	1.86	− 0.31	36.8	39.1	40.6	41.3	43.3	49
21 Head Arc	49.18	2.41	− 0.06	44.8	47.2	49.1	50.8	52.8	50
22 Head Girth	50.48	1.41	0.33	47.9	49.7	50.3	51.3	53.1	50.
23 Neck Girth (at larynx)	—	—	—	—	—	—	—	—	—
25 Neck Base Girth	26.45	1.45	0.39	24.0	25.5	26.5	27.3	28.8	342
30 Short Shoulder Length	5.67	0.69	0.39	4.6	5.1	5.7	6.1	6.9	342
31 Shoulder Length (to acromion)	8.62	0.93	0.19	7.2	7.9	8.6	9.2	10.2	342
33 Arm Scye Depth	—	—	—	—	—	—	—	—	—
35 Arm Scye Girth	24.41	1.83	1.67	22.0	23.1	24.4	25.4	27.2	338
36 Interacromion (bony shoulder width)	23.47	1.38	0.38	21.2	22.5	23.4	24.3	26.0	341
38 Shoulder Width	—	—	—	—	—	—	—	—	—
40 Axillary Width (back)	23.28	1.75	0.13	20.3	22.2	23.2	24.3	26.2	342
41 Axillary Width (front)	20.01	1.78	0.49	17.3	18.9	20.0	21.0	23.1	342
46 Chest Girth	53.54	2.90	0.72	49.0	51.7	53.4	55.0	58.2	342
50 Back Neck–Waist	23.98	1.48	0.15	21.6	23.0	24.0	25.0	26.5	342
51 Front Neck–Waist	23.00	1.50	0.17	20.8	22.0	22.9	24.0	25.7	342
55 Trunk Loop	—	—	—	—	—	—	—	—	—
60 Crotch Arc	42.25	2.86	0.61	38.0	40.4	42.0	44.0	47.0	342
61 Waist to Crotch	—	—	—	—	—	—	—	—	—
63 Waist Girth	50.38	3.11	1.30	45.8	48.8	50.1	51.6	56.0	342
64 Side Seam	56.66	3.25	− 0.01	50.9	54.6	56.8	58.8	61.9	342
65 Waist Height	—	—	—	—	—	—	—	—	—
66 Waist–Hip	13.16	1.73	0.16	10.4	11.9	13.1	14.3	16.1	341
68 Hip Girth	54.82	3.54	1.21	49.5	52.7	54.5	56.4	61.0	342
70 Inside Leg	41.27	2.72	0.90	37.1	39.4	41.2	42.9	45.4	342
71 Knee Height	24.71	1.85	0.50	21.8	23.5	24.4	25.5	28.1	50
72 Thigh Girth	31.97	2.92	1.72	27.4	30.3	31.6	33.3	36.7	342
74 Ankle Girth	15.17	0.99	0.55	13.6	14.5	15.0	15.7	16.8	50.
75 Foot Length	15.62	0.91	0.08	14.4	14.8	15.4	16.3	17.0	50
81 Arm Length	33.99	2.03	0.04	30.4	32.8	34.0	35.4	37.0	342
80 Elbow Length	18.93	1.46	− 0.16	16.0	18.1	19.0	19.9	21.2	50
82 Maximum Upper Arm Girth	17.35	1.49	0.15	14.4	16.6	17.2	18.0	19.7	50
83 Wrist Girth	11.60	0.68	0.46	10.4	11.2	11.5	12.0	13.0	50
90 Hand Girth	13.10	0.85	0.11	11.8	12.4	13.1	13.6	14.4	50
92 Hand Length	11.23	0.74	− 0.21	9.8	10.8	11.2	11.9	12.4	50

Table 18 — Summary of measurements for ages 4.00 years up to (but not including) 5.00 years

Data	Mean	Standard deviation	Skewness	5 %	25 %	Median	75 %	95 %	N
00 Age	4.45	0.28	0.18	4.0	4.2	4.4	4.7	4.9	369
01 Weight	17.47	2.33	0.94	13.9	15.9	17.2	18.7	21.5	368
10 Stature	104.30	4.61	0.21	96.6	101.1	104.3	107.1	111.9	369
11 Crown-Crotch	—	—	—	—	—	—	—	—	—
12 Cervicale-Foot	84.78	4.20	0.31	78.1	81.7	84.7	87.4	91.9	369
20 Cervicale-Brow	40.91	1.94	0.01	37.7	39.2	41.1	42.2	43.6	49
21 Head Arc	49.15	2.15	− 0.85	43.9	47.8	49.3	50.5	52.0	49
22 Head Girth	50.67	1.85	− 1.20	47.8	49.6	51.0	51.8	52.9	49
23 Neck Girth (at larynx)	—	—	—	—	—	—	—	—	—
25 Neck Base Girth	27.26	1.35	0.24	25.0	26.4	27.1	28.1	29.5	369
30 Short Shoulder Length	6.07	0.69	0.51	5.0	5.6	6.0	6.5	7.4	369
31 Shoulder Length (to acromion)	9.01	0.83	0.19	7.7	8.4	9.0	9.6	10.3	369
33 Arm Scye Depth	—	—	—	—	—	—	—	—	—
35 Arm Scye Girth	25.09	1.49	0.44	22.9	24.1	25.0	26.0	27.8	368
36 Interacromion (bony shoulder width)	24.43	1.18	0.36	22.4	23.6	24.4	25.2	26.4	369
38 Shoulder Width	—	—	—	—	—	—	—	—	—
40 Axillary Width (back)	24.35	1.66	0.08	21.8	23.1	24.3	25.4	27.1	368
41 Axillary Width (front)	20.60	1.65	0.23	18.0	19.4	20.5	21.6	23.5	369
46 Chest Girth	55.06	3.01	0.81	50.7	53.0	54.9	56.8	60.2	369
50 Back Neck–Waist	24.74	1.56	0.24	22.2	23.7	24.8	25.8	27.4	367
51 Front Neck–Waist	24.01	1.49	0.08	21.5	23.0	24.0	25.0	26.4	367
55 Trunk Loop	—	—	—	—	—	—	—	—	—
60 Crotch Arc	44.13	3.08	0.50	39.5	42.0	43.9	45.9	49.7	368
61 Waist to Crotch	—	—	—	—	—	—	—	—	—
63 Waist Girth	51.51	3.35	0.87	46.4	49.2	51.2	53.2	57.1	369
64 Side Seam	61.28	3.43	0.20	55.9	59.0	61.2	63.4	66.7	369
65 Waist Height	—	—	—	—	—	—	—	—	—
66 Waist–Hip	13.92	1.70	0.04	11.0	12.8	13.9	15.1	16.7	369
68 Hip Girth	56.97	3.74	0.89	51.5	54.3	56.6	59.0	63.3	369
70 Inside Leg	44.81	2.67	0.05	40.4	43.0	44.8	46.5	49.1	369
71 Knee Height	26.41	1.86	− 0.54	23.2	25.2	26.6	27.7	28.9	49
72 Thigh Girth	33.39	2.82	0.42	29.0	31.4	33.2	35.1	38.3	369
74 Ankle Girth	15.39	0.92	− 0.21	13.6	14.7	15.4	16.2	16.7	49
75 Foot Length	16.46	1.02	0.42	14.7	15.8	16.3	17.1	18.2	49
81 Arm Length	35.98	2.14	0.55	32.6	34.6	35.9	37.2	39.6	369
80 Elbow Length	19.99	1.48	0.30	17.7	18.9	20.0	20.8	22.9	49
82 Maximum Upper Arm Girth	17.69	1.45	0.06	15.4	16.6	17.5	18.8	20.1	49
83 Wrist Girth	11.82	0.59	0.88	10.9	11.4	11.9	12.1	12.8	49
90 Hand Girth	13.46	0.73	0.54	12.4	12.8	13.4	13.9	14.8	49
92 Hand Length	11.73	0.64	0.33	10.8	11.2	11.6	12.2	12.7	49

Table 19 — Baby and infant size survey centiles: 5.0 %

Data	Age groups: (lower limits)											
	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.50	3.00	4.00
00 Age	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.5	3.1	4.0
01 Weight	2.9	5.2	6.7	7.8	8.2	9.0	9.2	9.4	10.1	11.5	12.9	13.9
10 Stature	49.4	58.5	64.5	68.0	71.8	75.4	78.2	80.2	81.7	86.4	91.3	96.6
11 Crown-Crotch	32.0	38.8	41.3	42.9	44.4	46.2	47.7	48.7	—	—	—	—
12 Cervicale-Foot	—	—	—	—	—	—	—	—	65.0	69.2	73.2	78.1
20 Cervicale-Brow	24.0	29.1	31.2	32.0	32.3	33.6	33.7	33.7	—	—	36.8	37.7
21 Head Arc	—	—	—	—	—	—	—	—	—	—	44.8	43.9
22 Head Girth	—	—	—	—	—	—	—	—	—	—	47.9	47.8
23 Neck Girth (at larynx)	10.0	21.0	20.5	21.3	21.8	21.6	22.0	21.8	—	—	—	—
25 Neck Base Girth	—	—	—	—	—	—	—	—	22.8	23.6	24.0	25.0
30 Short Shoulder Length	—	—	—	—	—	—	—	—	4.1	4.3	4.6	5.0
31 Shoulder Length (to acromion)	3.9	4.1	4.4	5.3	5.4	5.8	6.0	6.0	6.3	6.5	7.2	7.7
33 Arm Scye Depth	3.2	3.8	4.1	4.2	4.4	4.3	4.6	4.7	—	—	—	—
35 Arm Scye Girth	—	—	—	—	—	—	—	—	20.0	21.0	22.0	22.9
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	19.3	19.8	21.2	22.4
38 Shoulder Width	14.2	17.0	18.3	19.6	19.2	19.9	21.1	21.0	—	—	—	—
40 Axillary Width (back)	12.4	15.0	15.9	16.5	18.0	18.1	18.1	18.5	18.8	19.2	20.3	21.8
41 Axillary Width (front)	11.1	13.0	13.3	14.3	14.2	14.1	15.1	14.9	16.5	17.1	17.3	18.0
46 Chest Girth	31.8	39.1	42.0	44.1	44.6	46.1	46.9	46.8	46.2	48.0	49.0	50.7
50 Back Neck-Waist	13.5	15.6	16.5	17.4	18.5	19.8	20.2	20.4	20.5	20.9	21.6	22.2
51 Front Neck-Waist	—	—	—	—	—	—	—	—	19.5	20.1	20.8	21.5
55 Trunk Loop	52.3	65.3	69.4	71.9	72.9	73.5	75.6	76.3	—	—	—	—
60 Crotch Arc	—	—	—	—	—	—	—	—	33.5	36.2	38.0	39.5
61 Waist to Crotch	4.5	6.6	6.8	7.6	7.5	9.0	10.1	9.2	—	—	—	—
63 Waist Girth	29.7	36.5	38.2	38.4	40.0	39.6	39.2	40.7	42.6	44.5	45.8	46.4
64 Side Seam	—	—	—	—	—	—	—	—	44.5	47.7	50.9	55.9
65 Waist Height	21.9	28.1	31.5	33.9	36.3	38.4	41.0	41.3	—	—	—	—
66 Waist-Hip	—	—	—	—	—	—	—	—	9.8	9.6	10.4	11.0
68 Hip Girth	27.9	37.3	40.1	42.8	43.0	44.7	43.9	44.4	44.8	48.0	49.5	51.5
70 Inside Leg	16.2	19.8	21.9	24.2	25.7	27.6	28.9	30.2	31.3	33.9	37.1	40.4
71 Knee Height	—	—	—	—	—	—	—	—	—	—	21.8	23.2
72 Thigh Girth	15.6	21.1	23.2	24.0	24.0	25.5	25.1	25.4	25.6	26.5	27.4	29.0
74 Ankle Girth	—	—	—	—	—	—	—	—	—	—	13.6	13.6
75 Foot Length	7.3	8.3	9.3	9.8	10.3	10.9	11.4	11.7	—	—	14.4	14.7
81 Arm Length	15.2	18.8	20.3	21.9	23.2	24.0	24.9	25.8	27.1	29.0	30.4	32.6
80 Elbow Length	—	—	—	—	—	—	—	—	—	—	16.0	17.7
82 Maximum Upper Arm Girth	9.5	12.6	13.4	14.0	13.9	14.5	14.5	14.1	—	—	14.4	15.4
83 Wrist Girth	—	—	—	—	—	—	—	—	—	—	10.4	10.9
90 Hand Girth	—	—	—	—	—	—	—	—	—	—	11.8	12.4
92 Hand Length	—	—	—	—	—	—	—	—	—	—	9.8	10.8

Table 20 — Baby and infant size survey centiles: 25.0 %

Data	Age groups: (lower limits)											
	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.50	3.00	4.00
00 Age	0.0	0.3	0.6	0.8	1.1	1.3	1.6	1.8	2.1	2.6	3.3	4.2
01 Weight	3.6	6.2	7.3	8.4	9.2	10.0	10.5	11.2	11.8	13.0	14.4	15.9
10 Stature	52.2	62.4	66.9	71.2	74.2	78.3	80.8	83.3	85.7	89.8	95.9	101.1
11 Crown-Crotch	34.6	40.7	43.2	44.5	46.5	48.5	49.5	50.1	—	—	—	—
12 Cervicale-Foot	—	—	—	—	—	—	—	—	68.5	71.9	77.1	81.7
20 Cervicale-Brow	25.5	30.4	32.2	33.3	33.9	35.5	35.8	36.5	38.2	—	39.1	39.2
21 Head Arc	—	—	—	—	—	—	—	—	45.1	—	47.2	47.8
22 Head Girth	—	—	—	—	—	—	—	—	48.2	—	49.7	49.6
23 Neck Girth (at larynx)	19.5	21.8	22.3	22.3	22.6	23.0	23.1	23.1	—	—	—	—
25 Neck Base Girth	—	—	—	—	—	—	—	—	24.0	24.6	25.4	26.4
30 Short Shoulder Length	—	—	—	—	—	—	—	—	4.6	4.9	5.1	5.6
31 Shoulder Length (to acromion)	4.4	5.1	5.4	6.0	6.0	6.5	6.6	6.7	7.1	7.6	7.9	8.4
33 Arm Scye Depth	3.7	4.2	4.5	4.6	4.8	4.9	5.0	5.0	—	—	—	—
35 Arm Scye Girth	—	—	—	—	—	—	—	—	21.4	22.3	23.1	24.1
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	20.5	21.2	22.5	23.6
38 Shoulder Width	16.1	18.3	20.2	20.9	22.0	21.6	23.0	23.2	—	—	—	—
40 Axillary Width (back)	13.6	15.6	17.2	18.1	19.3	19.7	20.0	20.6	20.3	21.1	22.2	23.1
41 Axillary Width (front)	12.4	14.4	15.0	15.4	15.7	16.0	16.4	16.3	17.6	18.2	18.9	19.4
46 Chest Girth	34.5	42.1	44.1	46.0	47.3	47.8	48.6	49.2	48.9	50.0	51.7	53.0
50 Back Neck–Waist	15.1	17.2	18.0	18.6	19.9	21.2	22.0	22.2	21.6	22.3	23.0	23.7
51 Front Neck–Waist	—	—	—	—	—	—	—	—	20.8	21.5	22.0	23.0
55 Trunk Loop	57.3	68.0	71.5	73.6	75.6	77.9	79.3	80.3	—	—	—	—
60 Crotch Arc	—	—	—	—	—	—	—	—	36.6	38.3	40.4	42.0
61 Waist to Crotch	6.0	7.8	8.6	9.0	9.7	10.5	10.7	10.4	—	—	—	—
63 Waist Girth	32.5	38.3	40.4	40.8	41.5	42.1	42.9	43.1	45.6	46.9	48.8	49.2
64 Side Seam	—	—	—	—	—	—	—	—	47.3	50.1	54.6	59.0
65 Waist Height	23.8	29.5	33.2	35.7	38.1	40.2	42.7	43.5	—	—	—	—
66 Waist–Hip	—	—	—	—	—	—	—	—	11.1	11.5	11.9	12.8
68 Hip Girth	30.7	40.8	42.7	44.7	46.0	47.6	47.8	48.0	48.2	50.2	52.7	54.3
70 Inside Leg	17.2	21.1	23.5	25.8	27.7	29.4	30.8	32.2	33.5	35.7	39.4	43.0
71 Knee Height	—	—	—	—	—	—	—	—	20.1	—	23.5	25.2
72 Thigh Girth	17.6	23.4	24.4	25.7	26.6	27.1	27.0	27.3	27.4	28.6	30.2	31.4
74 Ankle Girth	8.4	—	—	—	—	—	—	—	14.0	—	14.5	14.7
75 Foot Length	7.8	9.0	9.8	10.3	10.9	11.6	12.0	12.3	13.2	—	14.8	15.8
81 Arm Length	16.8	20.0	21.7	23.0	24.5	25.6	26.4	27.3	29.1	30.8	32.7	34.6
80 Elbow Length	—	—	—	—	—	—	—	—	16.4	—	18.1	18.9
82 Maximum Upper Arm Girth	11.0	13.7	14.3	15.0	15.2	15.4	15.5	15.4	16.1	—	16.6	16.6
83 Wrist Girth	8.1	—	—	—	—	—	—	—	11.0	—	11.2	11.4
90 Hand Girth	—	—	—	—	—	—	—	—	11.9	—	12.4	12.8
92 Hand Length	—	—	—	—	—	—	—	—	9.8	—	10.8	11.2

Table 21 — Baby and infant size survey centiles: 50.0 %

Data	Age groups: (lower limits)											
	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.50	3.00	4.00
00 Age	0.1	0.4	0.6	0.9	1.1	1.4	1.6	1.9	2.3	2.7	3.5	4.4
01 Weight	4.5	6.7	8.1	9.1	9.9	10.8	11.4	11.9	12.7	14.1	15.7	17.2
10 Stature	56.1	63.7	69.1	73.1	76.5	80.1	83.1	85.4	88.4	93.2	99.0	104.3
11 Crown-Crotch	37.2	41.6	44.1	46.0	48.0	49.4	51.1	51.7	—	—	—	—
12 Cervicale-Foot	—	—	—	—	—	—	—	—	70.4	74.6	80.0	84.7
20 Cervicale-Brow	27.5	31.3	33.2	34.2	35.2	36.6	37.2	37.9	38.7	40.7	40.6	41.1
21 Head Arc	32.4	37.2	39.3	42.3	41.8	45.0	45.2	45.2	45.7	47.9	49.1	49.3
22 Head Girth	38.1	42.4	44.5	47.6	46.6	47.0	49.0	47.4	49.1	50.3	50.3	51.0
23 Neck Girth (at larynx)	21.0	23.3	23.2	23.3	23.4	23.7	23.8	23.8	—	—	—	—
25 Neck Base Girth	—	—	—	—	—	—	—	—	24.7	25.4	26.5	27.1
30 Short Shoulder Length	—	—	—	—	—	—	—	—	5.0	5.3	5.7	6.0
31 Shoulder Length (to acromion)	4.7	5.6	5.9	6.4	6.6	6.8	7.1	7.1	7.8	8.1	8.6	9.0
33 Arm Scye Depth	3.9	4.5	4.8	4.9	5.2	5.2	5.4	5.3	—	—	—	—
35 Arm Scye Girth	—	—	—	—	—	—	—	—	22.3	23.2	24.4	25.0
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	21.4	22.2	23.4	24.4
38 Shoulder Width	17.3	19.6	21.2	21.8	23.0	23.2	24.1	24.5	—	—	—	—
40 Axillary Width (back)	14.6	16.4	18.5	19.2	20.1	20.8	21.0	21.5	21.4	22.3	23.2	24.3
41 Axillary Width (front)	13.5	15.5	16.0	16.5	16.6	17.0	17.2	17.8	18.9	19.3	20.0	20.5
46 Chest Girth	37.8	43.2	45.8	47.0	48.7	49.9	50.4	50.9	50.4	51.9	53.4	54.9
50 Back Neck-Waist	16.1	18.2	19.0	20.0	21.1	22.1	22.8	23.1	22.4	23.2	24.0	24.8
51 Front Neck-Waist	—	—	—	—	—	—	—	—	21.8	22.4	22.9	24.0
55 Trunk Loop	62.0	70.3	73.9	76.6	78.6	80.5	82.0	83.5	—	—	—	—
60 Crotch Arc	—	—	—	—	—	—	—	—	38.1	40.1	42.0	43.9
61 Waist to Crotch	7.2	8.7	9.6	10.1	10.8	11.0	11.5	11.2	—	—	—	—
63 Waist Girth	36.0	40.2	42.1	42.6	43.1	44.2	44.4	44.9	47.5	48.8	50.1	51.2
64 Side Seam	—	—	—	—	—	—	—	—	49.0	52.2	56.8	61.2
65 Waist Height	26.2	31.0	34.3	37.0	39.4	41.8	44.0	44.9	—	—	—	—
66 Waist-Hip	—	—	—	—	—	—	—	—	11.9	12.6	13.1	13.9
68 Hip Girth	33.9	42.6	45.1	47.0	48.1	49.1	50.1	50.2	50.1	52.4	54.5	56.6
70 Inside Leg	18.7	22.2	24.8	26.9	28.8	30.7	32.3	33.6	35.0	37.6	41.2	44.8
71 Knee Height	—	—	—	—	—	—	—	—	21.4	23.0	24.4	26.6
72 Thigh Girth	19.7	25.0	26.0	26.9	27.8	28.2	29.2	29.0	28.9	30.1	31.6	33.2
74 Ankle Girth	9.7	12.0	13.3	13.8	13.7	13.8	14.9	14.3	14.4	15.0	15.0	15.4
75 Foot Length	8.2	9.3	10.1	10.7	11.4	12.0	12.4	12.8	13.6	14.6	15.4	16.3
81 Arm Length	18.1	21.1	22.8	24.2	25.5	26.8	27.6	28.4	30.3	31.9	34.0	35.9
80 Elbow Length	—	—	—	—	—	—	—	—	17.2	17.8	19.0	20.0
82 Maximum Upper Arm Girth	12.0	14.3	15.0	15.7	16.1	16.0	16.2	16.4	16.4	16.6	17.2	17.5
83 Wrist Girth	8.8	10.1	10.6	11.4	11.0	10.8	11.4	11.0	11.2	11.5	11.5	11.9
90 Hand Girth	—	—	—	—	—	—	—	—	12.2	12.8	13.1	13.4
92 Hand Length	—	—	—	—	—	—	—	—	10.1	10.6	11.2	11.6

Table 22 — Baby and infant size survey centiles: 75.0 %

Data	Age groups: (lower limits)											
	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.50	3.00	4.00
00 Age	0.2	0.4	0.7	0.9	1.2	1.4	1.7	1.9	2.4	2.8	3.7	4.7
01 Weight	5.2	7.4	8.6	9.8	10.7	11.4	12.1	12.8	13.8	15.5	16.8	18.7
10 Stature	58.7	65.6	71.4	74.6	78.3	82.1	85.6	87.9	91.3	95.2	101.4	107.1
11 Crown-Crotch	38.9	42.8	45.7	47.2	49.0	50.6	52.3	53.0	—	—	—	—
12 Cervicale-Foot	—	—	—	—	—	—	—	—	73.1	76.8	82.0	87.4
20 Cervicale-Brow	28.9	32.3	34.2	35.2	36.7	37.4	39.0	38.9	40.1	—	41.3	42.2
21 Head Arc	—	—	—	—	—	—	—	—	47.8	—	50.8	50.5
22 Head Girth	—	—	—	—	—	—	—	—	50.5	—	51.3	51.8
23 Neck Girth (at larynx)	22.4	24.2	24.3	24.1	24.3	24.2	24.6	24.5	—	—	—	—
25 Neck Base Girth	—	—	—	—	—	—	—	—	25.5	26.5	27.3	28.1
30 Short Shoulder Length	—	—	—	—	—	—	—	—	5.4	5.7	6.1	6.5
31 Shoulder Length (to acromion)	5.1	6.2	6.4	6.8	7.1	7.1	7.6	7.8	8.3	8.7	9.2	9.6
33 Arm Scye Depth	4.3	4.8	5.3	5.2	5.6	5.6	5.7	5.7	—	—	—	—
35 Arm Scye Girth	—	—	—	—	—	—	—	—	23.4	24.4	25.4	26.0
36 Interacromion (bony shoulder width)	—	—	—	—	—	—	—	—	22.1	23.1	24.3	25.2
38 Shoulder Width	18.2	20.7	22.4	23.1	24.3	24.2	25.3	26.1	—	—	—	—
40 Axillary Width (back)	15.4	17.3	19.7	20.3	21.2	21.4	22.1	22.7	22.2	23.3	24.3	25.4
41 Axillary Width (front)	14.7	16.6	16.8	17.6	18.0	17.8	18.1	18.9	19.8	20.2	21.0	21.6
46 Chest Girth	40.1	44.9	47.2	48.3	49.9	51.0	51.9	52.6	52.0	53.5	55.0	56.8
50 Back Neck-Waist	17.1	19.0	20.1	21.1	22.2	23.0	23.8	24.2	23.2	24.0	25.0	25.8
51 Front Neck-Waist	—	—	—	—	—	—	—	—	22.6	23.4	24.0	25.0
55 Trunk Loop	66.4	72.6	76.7	78.7	80.9	82.8	85.1	86.5	—	—	—	—
60 Crotch Arc	—	—	—	—	—	—	—	—	39.7	42.2	44.0	45.9
61 Waist to Crotch	8.3	9.8	10.9	10.7	11.9	11.9	12.6	12.5	—	—	—	—
63 Waist Girth	38.2	42.4	44.4	44.4	45.0	46.1	45.8	47.2	49.6	51.2	51.6	53.2
64 Side Seam	—	—	—	—	—	—	—	—	50.6	54.3	58.8	63.4
65 Waist Height	27.8	32.2	35.6	38.2	40.6	42.8	45.1	46.9	—	—	—	—
66 Waist-Hip	—	—	—	—	—	—	—	—	12.8	13.5	14.3	15.1
68 Hip Girth	37.7	44.3	47.4	48.8	49.7	50.4	51.9	52.5	52.6	54.8	56.4	59.0
70 Inside Leg	20.2	23.1	25.9	28.1	29.6	31.6	33.8	35.3	36.3	39.2	42.9	46.5
71 Knee Height	—	—	—	—	—	—	—	—	21.7	—	25.5	27.7
72 Thigh Girth	22.0	26.5	28.3	28.2	29.2	30.0	30.4	30.7	30.3	32.5	33.3	35.1
74 Ankle Girth	—	—	—	—	—	—	—	—	15.2	—	15.7	16.2
75 Foot Length	8.7	9.6	10.4	11.3	11.9	12.5	12.9	13.4	14.1	—	16.3	17.1
81 Arm Length	19.2	22.0	23.9	25.8	26.7	27.9	28.4	29.8	31.2	33.0	35.4	37.2
80 Elbow Length	—	—	—	—	—	—	—	—	18.1	—	19.9	20.8
82 Maximum Upper Arm Girth	12.9	15.0	15.9	16.2	16.8	16.6	17.0	17.3	17.2	—	18.0	18.8
83 Wrist Girth	—	—	—	—	—	—	—	—	11.4	—	12.0	12.1
90 Hand Girth	—	—	—	—	—	—	—	—	12.5	—	13.6	13.9
92 Hand Length	—	—	—	—	—	—	—	—	10.5	—	11.9	12.2