Trends in Heights and Weights

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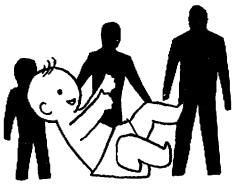


CHILDREN and adults in the United States are taller than children and adults of similar ages were some years ago.

Among the reasons therefor are improved economic conditions, better diets, and advances in medical care and health services.

The figures that show how our population has changed and how individuals differ in size from their parents and grandparents reveal interesting progress, of which many of us may not be aware.

The population of the United States before 1800 consisted of 89 percent English and Scottish, 8 percent German and Dutch, 2 percent Irish, and 1 percent from other countries.

The immigrants in 1800–1900 came mostly from Germany, Ireland, and Poland. Most of the immigrants between 1900 and 1920 were from Canada, Mexico, and countries of southern Europe. The later immigrants were shorter than the earlier ones, who had come from northwestern Europe, and many of them settled in the Eastern States.

Immigration has been restricted since 1920, and the chief change in our population has been the migration of people from east to west.

The earliest data for heights and weights of large groups of the population are from Army measurements. More than 500 thousand Civil War soldiers were measured in 1863–1864. They were largely from "old" American families—at least two generations in the United States—and averaged 67.7 inches in height.

Another early record is that for United States Senators of 1866, who averaged 69.5 inches without shoes. The report pointed out that they were not typical, however: "They exceed (in height) the average of mankind in all parts of the world as well as the average of our own country."

The average height of more than 1 million United States soldiers in 1917–1918 was 67.5 inches. This low overall average probably was due to the larger number of "new" Americans—immigrants or first-generation Americans. The shortest men came from the New England and Middle Atlantic States,

Weights of Men and Women

Height (inches)	Weights of men			Weights of women		
	Low	Median	High	Low	Median	High
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
60	.....	.....	.....	100	109	118
61	.....	.....	.....	104	112	121
62	.....	.....	.....	107	115	125
63	(118)	(129)	(141)	110	118	128
64	(122)	(133)	(145)	113	122	132
65	126	137	149	116	125	135
66	130	142	155	120	129	139
67	134	147	161	123	132	142
68	139	151	166	126	136	146
69	143	155	170	130	140	151
70	147	159	174	133	144	156
71	150	163	178	(137)	(148)	(161)
72	154	167	183	(141)	(152)	(166)
73	158	171	188	.....	.....	.....
74	162	175	192	.....	.....	.....
75	165	178	195	.....	.....	.....

Weights were based on those of college men 25 to 29 years old and college women 20 to 24 years old. Measurements were made without shoes and other clothing. The range from "low" to "high" at a given height included the middle 50 percent of the cases. Half the weights were below the median and half above. Body build will determine where, within the ranges given, normal weight should be. Weight at any age probably should not exceed these values by more than 5 pounds for the shorter adults and 10 pounds for the taller ones.

Weights of Men

Dates	Age in years	Height in inches			
		65	68	70	73
		Weight in pounds			
1885–1900	25–29	142	154	163	171
	35–39	148	162	172	191
	40–49	152	166	177	197
1955	25–29	156	161	167	172
	35–39	152	166	172	186
	40–49	151	168	170	181

Weights of Women

Dates	Age in years	Height in inches			
		60	63	65	68
		Weight in pounds			
1885–1908	25–29	122	132	140	152
	35–39	129	140	148	159
	40–49	136	146	155	166
1955	25–29	116	124	133	146
	35–39	132	133	140	149
	40–49	135	142	151	154

where many of the newest immigrants had settled. Average heights of the men in those States were 66.4 to 67.3 inches.

Men from the mountain sections of North Carolina averaged 68.7 inches and from the Ozark region, 68.6 inches. Nearly all of them were from "old" American families, and were about an inch taller than the "old" Americans of 50 years before.

About 100 thousand Army recruits in 1943 had an average height of 68.1 inches; 85 thousand recruits in 1946 averaged 68.4 inches. Smaller special groups of men in the Armed Forces measured in 1946–1953 averaged 68.4 to 70.2 inches.

Over the years, then, average heights have increased gradually.

The Association of Life Insurance Medical Directors and the Actuarial

Society of America in 1912 compiled data from previous records of heights and weights of civilians who had been accepted for life insurance. Most of them lived in cities in the Eastern States and Canada: 216,583 men in 1885–1900 and 221,819 women in 1885–1908. Measurements were in ordinary indoor clothing with shoes. (On the basis of illustrations of shoe styles in 1900, an allowance of 1 inch for men's heels and 2 inches for women's heels has been made to make possible comparisons with heights of other groups measured without shoes.)

A study of heights and weights was made in 1955 by the Department of Agriculture as part of a survey of eating habits in the United States. Data were reported for 6,340 men and 6,680 women in 6 thousand households representative of all households in the United States.

The men 30 to 35 years old in the life-insurance study published in 1912 had the highest average height of any age group, 67.6 inches. The men 25 to 29 years old in the 1955 Department of Agriculture study had the highest average height, 69.6 inches.

Men in 1955 thus averaged at least 2 inches taller than men 55 to 70 years ago. They attained that average at least 5 years earlier. The average heights in 1955 were similar to those of the "very tall" Senators of 1866.

The two studies also provide information on the percentage of tall men. Fewer than 4 percent of any age group were as tall as 6 feet in 1885–1900. Twenty percent of the 20–29-year-old men were at least 6 feet in 1955, and 3 percent were at least 6 feet 3 inches tall.

Women, too, averaged about 2 inches taller in 1955 than 50 years earlier. Women 20 to 29 years old averaged 62.4 inches in 1900–1908 and 64.3 inches in 1955. Only 4 percent of the 20–29-year-old women in 1900–1908 could be considered tall, 67 inches and over, but 18 percent of this age group in 1955 were that tall.

Older men measured in 1885–1900 were heavier when compared with younger men of corresponding height than those in the 1955 sample. In 1885–1900, for example, the average weight of men 45–49 years old was at least 20 pounds more than that of 25–29-year-old men of corresponding height.

Differences with age among men 68, 70, and 73 inches tall were minor in 1955; the older men weighed, respectively, only 7, 3, and 9 pounds more than those 20 years younger.

The 1955 weights of the taller men (70 and 73 inches) were less at 40–49 years than those for men of the same height in 1885–1900.

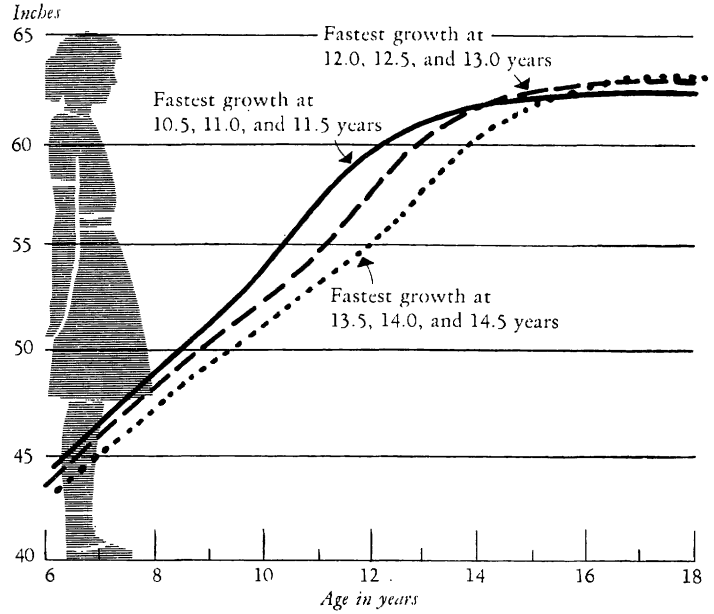
Women of comparable ages weighed less for their height in 1955 than in 1885–1908, but the increase in weight was slightly more from the younger to the older age groups among women studied in 1955 than among those measured in 1885–1908. For example, the 25–29-year-old women at all heights weighed 6 to 8 pounds less in 1955 than the corresponding group in 1885–1908. The 45–49-year-old women in 1955, however, were about 18 pounds heavier than those 25–29 years old, whereas the difference in 1885–1908 between the age groups was only about 14 pounds.

Men succeed better than women in keeping their earlier weight. Women were 4 to 8 pounds lighter at 25 to 30 years in 1955 than in 1900, but they gained weight faster in their later years than men did.

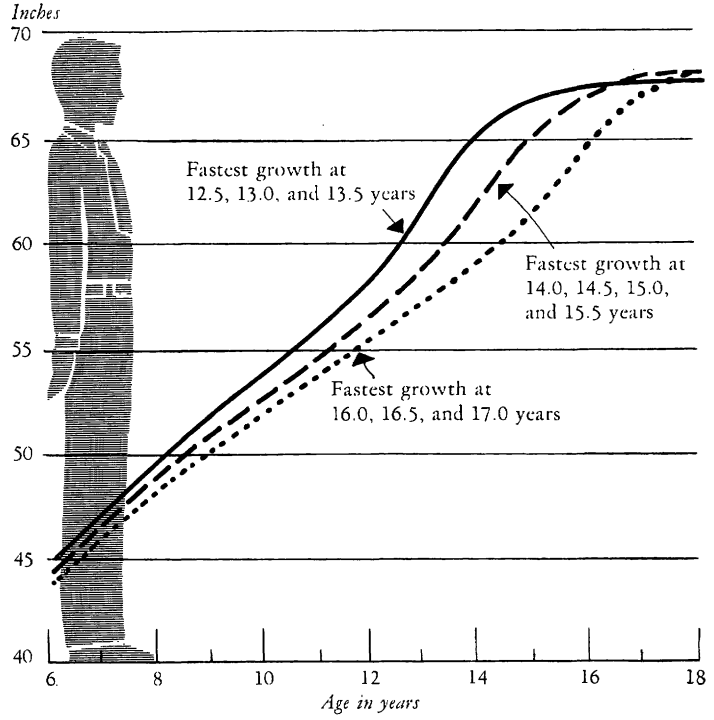
Another way to measure changes in size is to study the changes in selected population groups, such as freshmen in colleges. Freshmen in two men's colleges were about 3 inches taller in 1957 than freshmen 75 years before.

The percentage of first-year college men who were 6 feet and over has increased from less than 5 percent in the 1880's to about 30 percent since 1955. Average weights have increased about 20 pounds—from 136 to 157 pounds—slightly more than would be expected for the extra 3 inches in stature.

Average Heights of Girls Measured Yearly



Average Heights of Boys Measured Yearly



Sixty years of consecutive records in two women's colleges show increases in the average heights of freshmen of about 2 inches—from 63.4 to 65.3 inches. Changes in average weights—from 120 pounds to 127 pounds—are much less than those of men.

The 1912 life-insurance tables, which are still in use, are based on the heights and weights of insured men and women of more than 50 years ago as dressed at that time. Adults usually are advised to try to maintain in later years the weight recommended for their height at age 25 to 29 years rather than to gain the amounts shown in the tables.

THE DEPARTMENT of Agriculture has developed a table of desirable weights for height from data on 25- to 29-year-old men and 20- to 24-year-old women from 100 colleges and universities of the United States in 1948–50. (Data used in preparing the table were made available through the Research Committee of the American College Health Association.)

The data represent nude weight-for-height values for the largest segment of the adult population for which recent data are available. Evidence from the 1955 study by the Department of Agriculture shows that persons with education beyond high school generally maintain a more desirable weight for height than those with less education.

Yearly measurements were made in 1922–1934 of a group of 707 boys and 745 girls throughout their 12 years in the public schools in the Boston area.

The boys and girls who were larger at 6 years grew faster and stopped growing sooner than those who were smaller at 6 years. The fast-growing children generally were heavier at all ages than those who grew more slowly.

Girls 10 to 12 years old usually are taller than boys of that age. When boys are 13 to 15 years old, they catch up with the girls in height and continue to grow at least until they are 18 to 19 years old. Girls usually grow only slightly after they are 13 to 15 years old.

Fat boys and girls tend to mature unusually fast. Only 3 of 100 overweight children studied in Birmingham, England, in 1955 had evidence of endocrine imbalance. When the weight of the others was reduced by diet, their rate of growth in height also slowed down.

The tendency to obesity in a few children may therefore be constitutional and associated with early maturity and early tallness. Growth stops earlier in these early maturing children, and the result is a relative shortness of stature and continued heaviness as an adult.

The most satisfactory method of judging a child's normalcy is to follow his own growth record over the years. He should gain both in height and weight at a fairly regular rate until about a year before he shows signs of pubescence. Then he will have a more rapid spurt of growth, and soon thereafter will reach his maximum height. A boy's gain in weight may continue for several years after he has attained his full height, but a girl shows little change in weight between her 15th and 20th year.

An individual's ultimate size depends on several factors. First is his heredity. The genes a child is born with determine his potential height. He may fall short of his potentialities, but he cannot exceed them. His rate of development is related genetically to his sex and skeletal development, but such factors in his environment as illness, malnutrition, or emotional stress may alter the rate.

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