**The first ten rows and five columns
of the fat data set**

Obs	case	fat_brozek	fat_siri	dens	age
1	1	12.6	12.3	1.0708	23
2	2	6.9	6.1	1.0853	22
3	3	24.6	25.3	1.0414	22
4	4	10.9	10.4	1.0751	26
5	5	27.8	28.7	1.0340	24
6	6	20.6	20.9	1.0502	24
7	7	19.0	19.2	1.0549	26
8	8	12.8	12.4	1.0704	25
9	9	5.1	4.1	1.0900	25
10	10	12.0	11.7	1.0722	23

Simple descriptive statistics for ht
Notice the unusual minimum value

The MEANS Procedure

Analysis Variable : ht Height (inches)				
N	**Mean**	**Std Dev**	**Minimum**	**Maximum**
252	70.1488095	3.6628558	29.5000000	77.7500000

The row with the smallest ht
Note the inconsistency with wt

Obs	case	fat_brozek	fat_siri	dens	age	wt	ht	bmi	ffw	neck	chest
1	42	31.7	32.9	1.025	44	205	29.5	29.9	140.1	36.6	106

Obs	abdomen	hip	thigh	knee	ankle	biceps	forearm	wrist
1	104.3	115.5	70.6	42.5	23.7	33.6	28.7	17.4

The row with the largest ht
This seems quite normal to me

Obs	case	fat_brozek	fat_siri	dens	age	wt	ht	bmi	ffw	neck	chest
1	96	17.3	17.4	1.0991	53	224.5	77.75	26.1	185.7	41.1	113.2

Obs	abdomen	hip	thigh	knee	ankle	biceps	forearm	wrist
1	99.2	107.5	61.7	42.3	23.2	32.9	30.8	20.4

| Obs	case	fat_brozek	fat_siri	dens	age	wt	ht	bmi	ffw	neck	chest
252	42	31.7	32.9	1.025	44	205	.	29.9	140.1	36.6	106

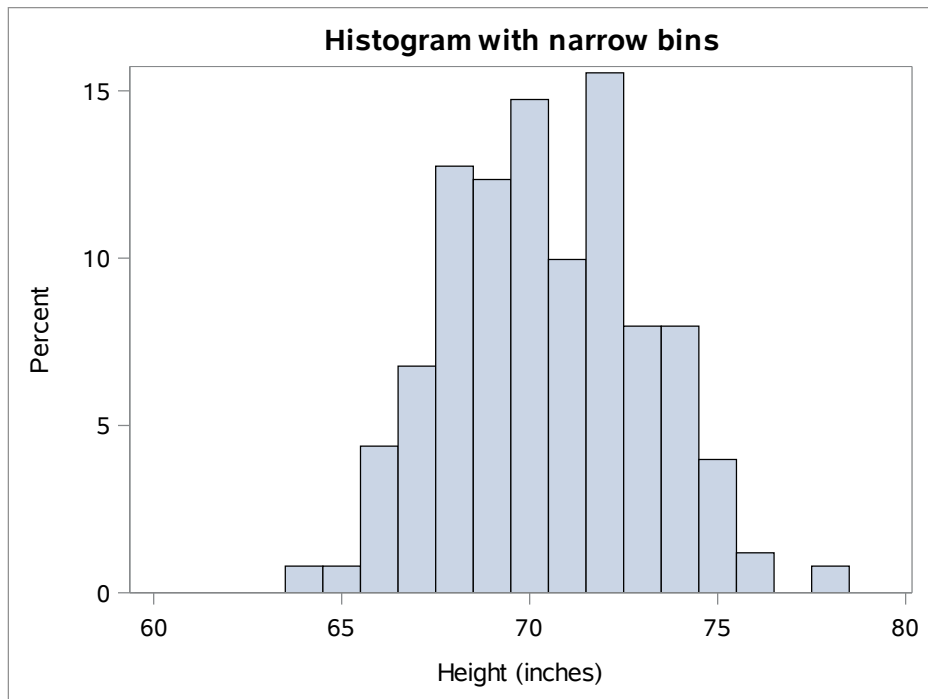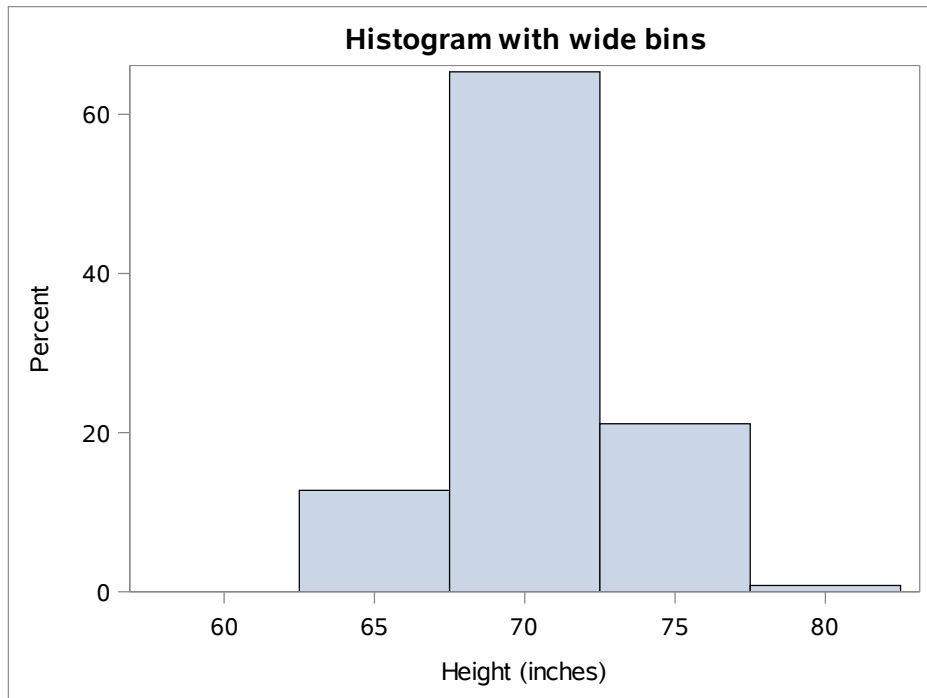| Obs	abdomen	hip	thigh	knee	ankle	biceps	forearm	wrist
252	104.3	115.5	70.6	42.5	23.7	33.6	28.7	17.4

The MEANS Procedure

Analysis Variable : ht Height (inches)					
N	N Miss	Mean	Std Dev	Minimum	Maximum
251	1	70.3107570	2.6142960	64.0000000	77.7500000

Original and converted units

Obs	ht	ht_cm	wt	wt_kg
1	77.75	197.485	224.50	102.045
2	77.50	196.850	188.15	85.523
3	76.00	193.040	216.00	98.182
4	76.00	193.040	244.25	111.023
5	75.50	191.770	194.00	88.182
6	75.25	191.135	171.50	77.955
7	75.00	190.500	212.75	96.705
8	74.75	189.865	210.25	95.568
9	74.75	189.865	224.75	102.159
10	74.50	189.230	186.25	84.659

Histogram with default bins

Histogram with narrow bins

Histogram with wide bins
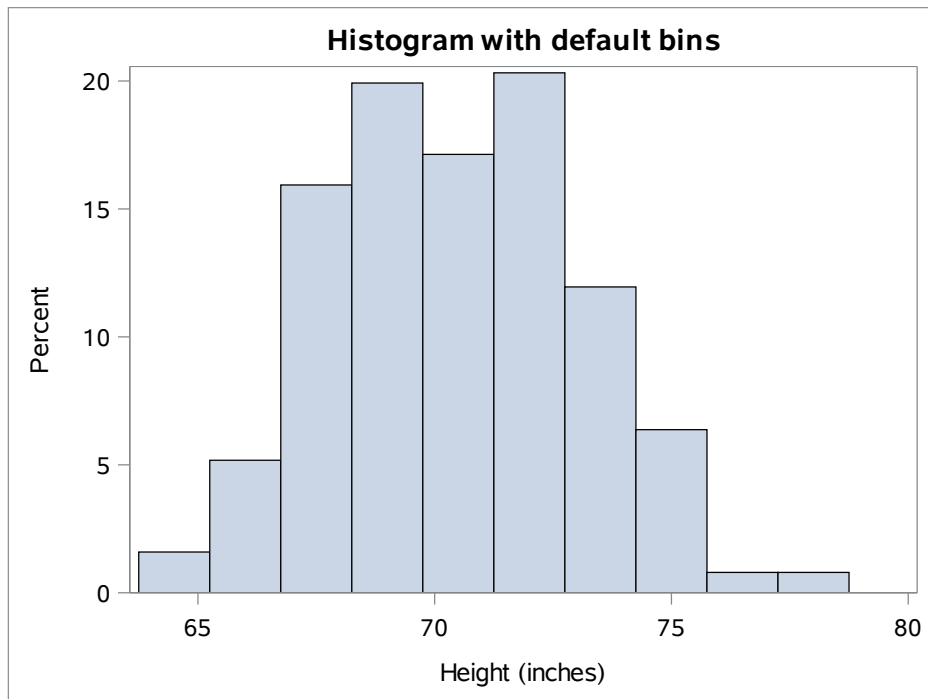
The CORR Procedure

10 With Variables:	neck chest abdomen hip thigh knee ankle biceps forearm wrist
2 **Variables:**	fat_brozek fat_siri

Pearson Correlation Coefficients, N = 252		
	fat_brozek	**fat_siri**
neck Neck circumference (cm)	0.49149	0.49059
chest Chest circumference (cm)	0.70289	0.70262
abdomen Abdomen circumference (cm) at the umbilicus and level with the iliac crest	0.81371	0.81343
hip Hip circumference (cm)	0.62570	0.62520
thigh Thigh circumference (cm)	0.56128	0.55961

The CORR Procedure

Pearson Correlation Coefficients, N = 252		
	fat_brozek	**fat_siri**
knee Knee circumference (cm)	0.50779	0.50867
ankle Ankle circumference (cm)	0.26678	0.26597
biceps Extended biceps circumference (cm)	0.49303	0.49327
forearm Forearm circumference (cm)	0.36328	0.36139
wrist Wrist circumference (cm) distal to the styloid processes	0.34757	0.34657

Correlation matrix output to a data set

Obs	_TYPE_	_NAME_	fat_brozek	fat_siri
1	MEAN		18.938	19.151
2	STD		7.751	8.369
3	N		252.000	252.000
4	CORR	neck	0.491	0.491
5	CORR	chest	0.703	0.703
6	CORR	abdomen	0.814	0.813
7	CORR	hip	0.626	0.625
8	CORR	thigh	0.561	0.560
9	CORR	knee	0.508	0.509
10	CORR	ankle	0.267	0.266
11	CORR	biceps	0.493	0.493

Correlation matrix output to a data set

Obs	_TYPE_	_NAME_	fat_brozek	fat_siri
12	CORR	forearm	0.363	0.361
13	CORR	wrist	0.348	0.347

Rounded and re-ordered correlation matrix

Obs	_TYPE_	_NAME_	fat_brozek	fat_siri
1	CORR	abdomen	81	81
2	CORR	chest	70	70
3	CORR	hip	63	63
4	CORR	thigh	56	56
5	CORR	knee	51	51
6	CORR	neck	49	49
7	CORR	biceps	49	49
8	CORR	forearm	36	36
9	CORR	wrist	35	35
10	CORR	ankle	27	27

Simple scatterplot

Scatterplot with linear regression line

Percentage body fat using Brozek's...

Abdomen circumference (cm) at the umbilicus and level with the iliac crest

○ Percentage body fat using Brozek's equation, 457/Density - 414.2
── Regression

Scatterplot with a smooth curve