## 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  |

## **Descriptive statistics for ht** Notice the unusual minimum

#### The MEANS Procedure

| Analysis Variable : ht Height (inches) |            |           |            |            |  |  |  |  |  |
|--|------------|-----------|------------|------------|--|--|--|--|--|
| N                                      | Mean       | Minimum   | Maximum    |            |  |  |  |  |  |
| 252                                    | 70.1488095 | 3.6628558 | 29.5000000 | 77.7500000 |  |  |  |  |  |

# 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 larges | st 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  |

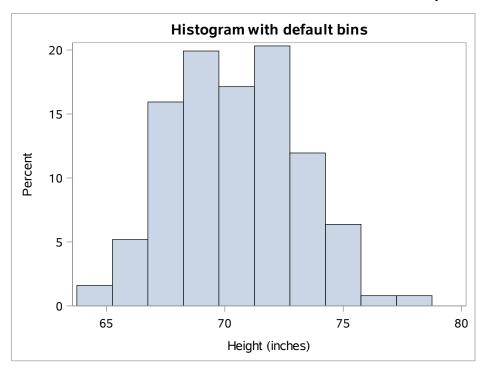
| Obs | case | fat_brozek | fat_siri | dens  | age | wt  | ht | bmi  | ffw   | neck | chest |
|-----|------|------------|----------|-------|-----|-----|----|------|-------|------|-------|
| 252 | 42   | 31.7       | 32.9     | 1.025 | 44  | 205 |    | 29.9 | 140.1 | 36.6 | 106   |

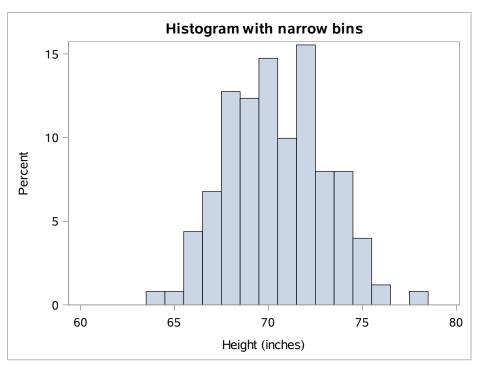
| Obs | abdomen | hip   | thigh | knee | ankle | biceps | forearm | wrist |
|-----|---------|-------|-------|------|-------|--------|---------|-------|
| 252 | 104 3   | 115 5 | 70.6  | 42.5 | 23.7  | 33.6   | 28.7    | 17.4  |

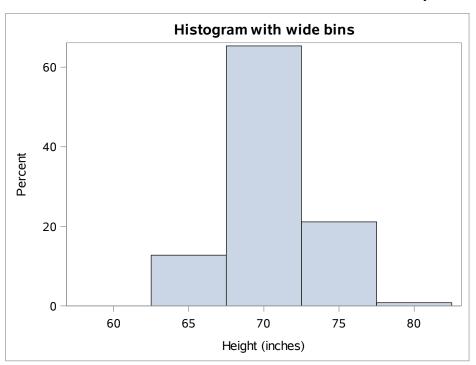
#### **The MEANS Procedure**

|     |           | Analysis Va | riable : ht Hei | ight (inches) |            |
|-----|-----------|-------------|-----------------|---------------|------------|
| N   | N<br>Miss | Mean        | Std Dev         | Minimum       | Maximum    |
| 251 | 1         | 70.3107570  | 2.6142960       | 64.0000000    | 77.7500000 |

| Obs | ht    | ht_cm  | wt     | wt_kg  |
|-----|-------|--------|--------|--------|
| 1   | 77.75 | 197.49 | 224.50 | 102.05 |
| 2   | 77.50 | 196.85 | 188.15 | 85.52  |
| 3   | 76.00 | 193.04 | 216.00 | 98.18  |
| 4   | 76.00 | 193.04 | 244.25 | 111.02 |
| 5   | 75.50 | 191.77 | 194.00 | 88.18  |
| 6   | 75.25 | 191.14 | 171.50 | 77.95  |
| 7   | 75.00 | 190.50 | 212.75 | 96.70  |
| 8   | 74.75 | 189.87 | 210.25 | 95.57  |
| 9   | 74.75 | 189.87 | 224.75 | 102.16 |
| 10  | 74.50 | 189.23 | 186.25 | 84.66  |







## **The CORR Procedure**

| 10 With Variables: | neck     | chest      | abdomen | hip | thigh | knee | ankle | biceps | forearm | wrist |
|--------------------|----------|------------|---------|-----|-------|------|-------|--------|---------|-------|
| 2 Variables:       | fat_broz | zek fat_si | ri      |     |       |      |       |        |         |       |

| Pearson Correlation Coefficients, N = 252 |   |  |
|---|---|--|
|   | fat_brozek  | fat_siri   |
| neck<br>Neck circumference (cm)           | 0.49149   | 0.49059  |
| <b>chest</b> Chest circumference (cm)     | 0.70289   | 0.70262  |
| abdomen<br>Abdomen circumference (cm)     | 0.81371   | 0.81343  |
| hip<br>Hip circumference (cm)             | 0.62570   | 0.62520  |
| thigh<br>Thigh circumference (cm)         | 0.56128   | 0.55961  |
|   | neck Neck circumference (cm)  chest Chest circumference (cm)  abdomen Abdomen circumference (cm)  hip Hip circumference (cm)  thigh | reck Neck circumference (cm)  chest Chest circumference (cm)  abdomen Abdomen circumference (cm)  hip Hip circumference (cm)  thigh  0.56128 |

#### The CORR Procedure

| Pearson Correlation Coefficients, N = 252 |            |          |
|---|------------|----------|
|   | fat_brozek | fat_siri |
| knee<br>Knee circumference (cm)           | 0.50779    | 0.50867  |
| ankle<br>Ankle circumference (cm)         | 0.26678    | 0.26597  |
| <b>biceps</b> Biceps circumference (cm)   | 0.49303    | 0.49327  |
| forearm Forearm circumference (cm)        | 0.36328    | 0.36139  |
| wrist<br>Wrist circumference (cm)         | 0.34757    | 0.34657  |

# Correlation matrix output to a data set

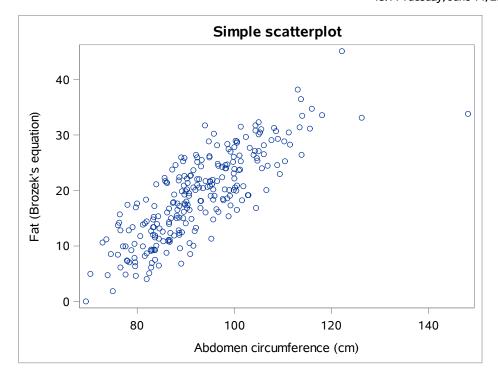
| I | Obs | _TYPE_ | _NAME_  | fat_brozek | fat_siri |
|---|-----|--------|---------|------------|----------|
| l | 1   | MEAN   |         | 18.938     | 19.151   |
|   | 2   | STD    |         | 7.751      | 8.369    |
|   | 3   | N      |         | 252.000    | 252.000  |
|   | 4   | CORR   | neck    | 0.491      | 0.491    |
|   | 5   | CORR   | chest   | 0.703      | 0.703    |
| l | 6   | CORR   | abdomen | 0.814      | 0.813    |
| l | 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    |

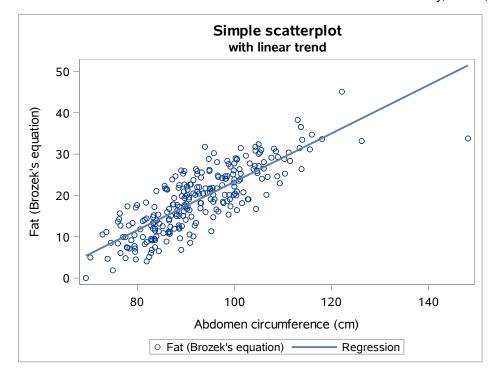
| Obs | _TYPE_ | _NAME_  | fat_brozek | fat_siri |
|-----|--------|---------|------------|----------|
| 12  | CORR   | forearm | 0.363      | 0.361    |
| 13  | CORR   | wrist   | 0.348      | 0.347    |

# Rounded and re-ordered correlation matrix

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

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