



Descriptive Statistics

Measures of Central Tendency

Measures of Dispersion



Descriptive Statistics

Measures of Central Tendency

Mean

Median

Mode

Measures of Dispersion

Range

Inter Quartile Range

Standard Deviation

Variance



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Mean height of men in your neighborhood



Mean height of men in your neighborhood

Median house price in your city



Mean height of men in your neighborhood

Median house price in your city

Standard Deviation of dollar order at the online
grocery store



Mean height of men in your neighborhood

Median house price in your city

Standard Deviation of dollar order at the online
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Mean **height** of men in your neighborhood

Median house price in your city

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Mean **height** of men in your neighborhood

Median **house price** in your city

Standard Deviation of **dollar order** at the online grocery store



Descriptive Statistics

Co-variation amongst two variables

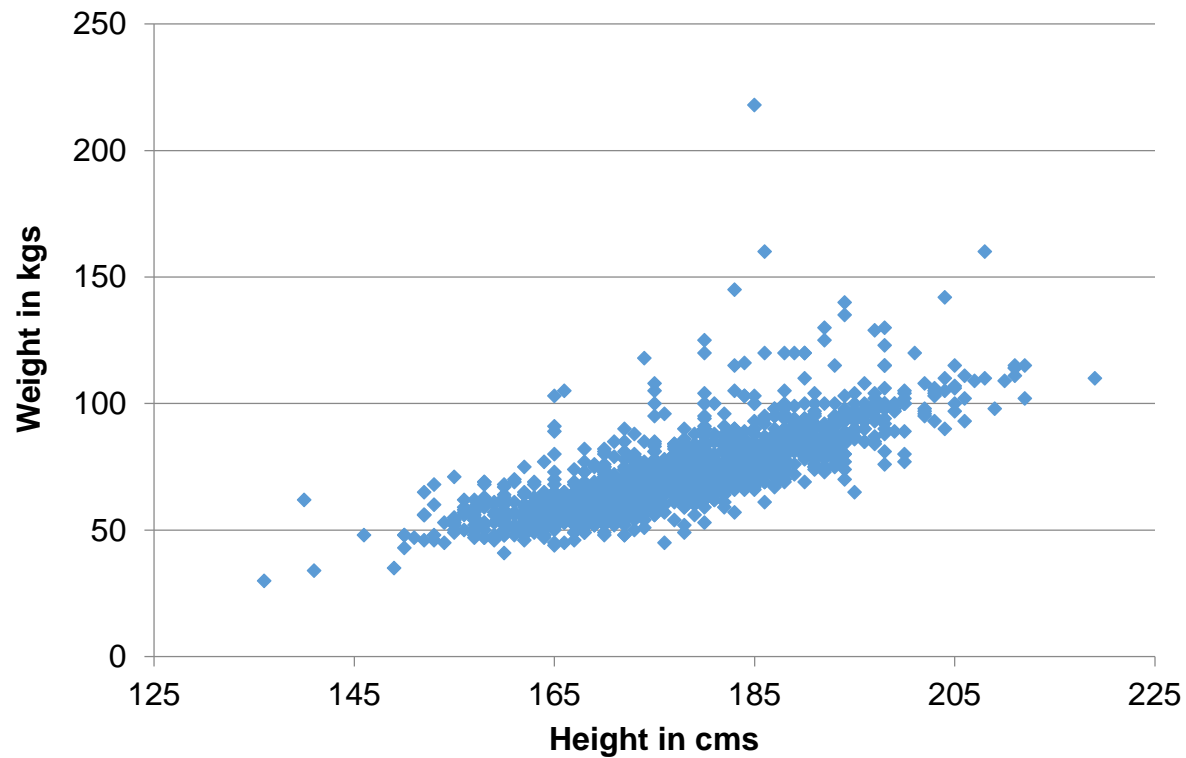


Descriptive Statistics

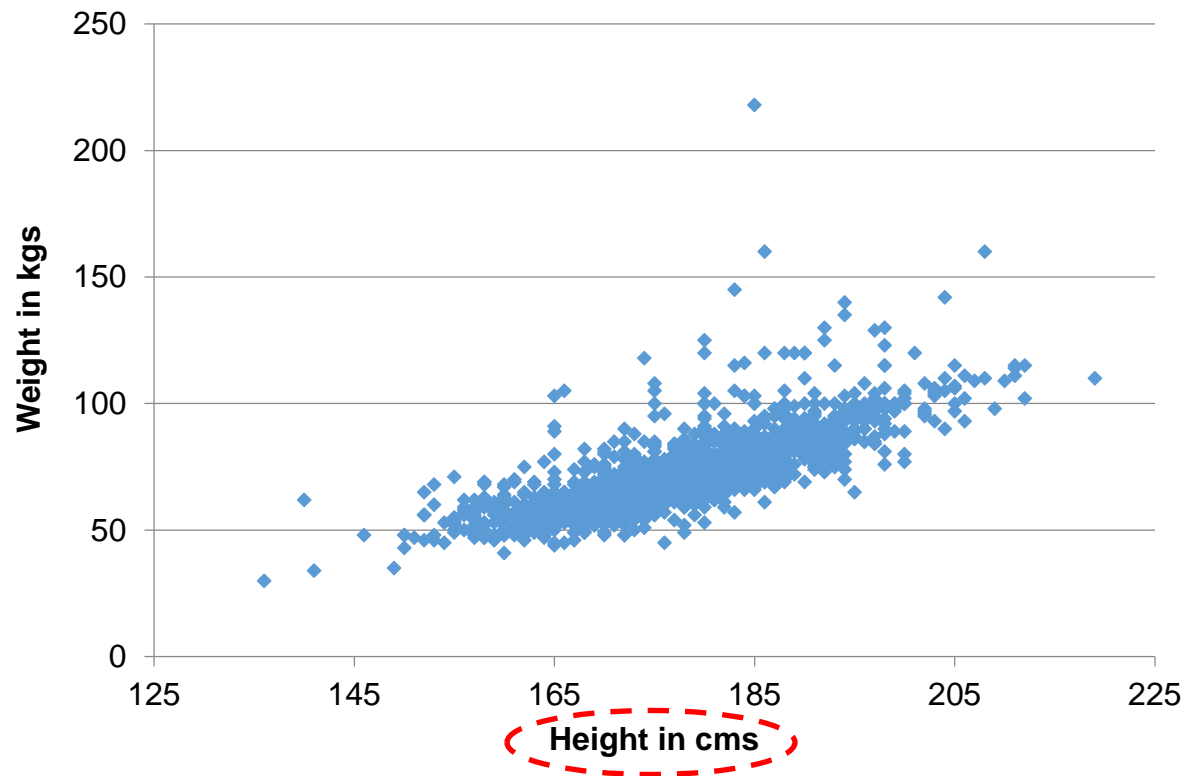
Co-variation amongst two variables

Measures of Association

Heights and Weights of Athletes

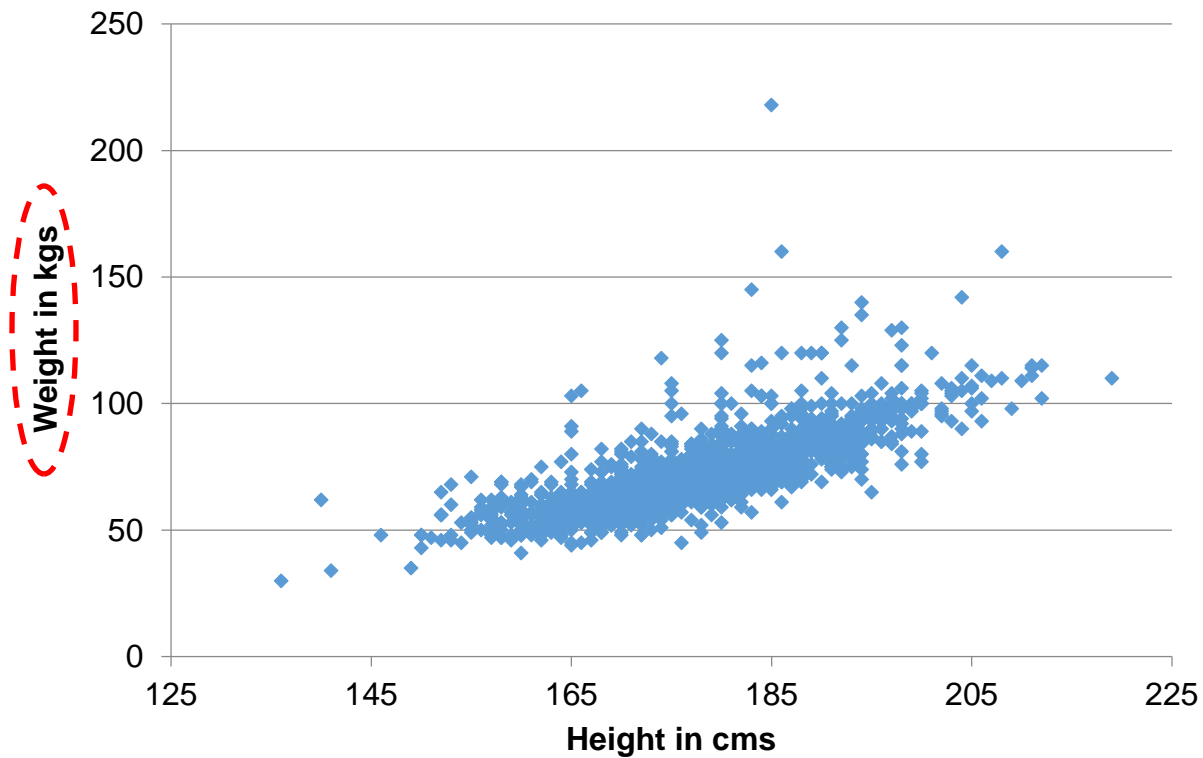


Heights and Weights of Athletes

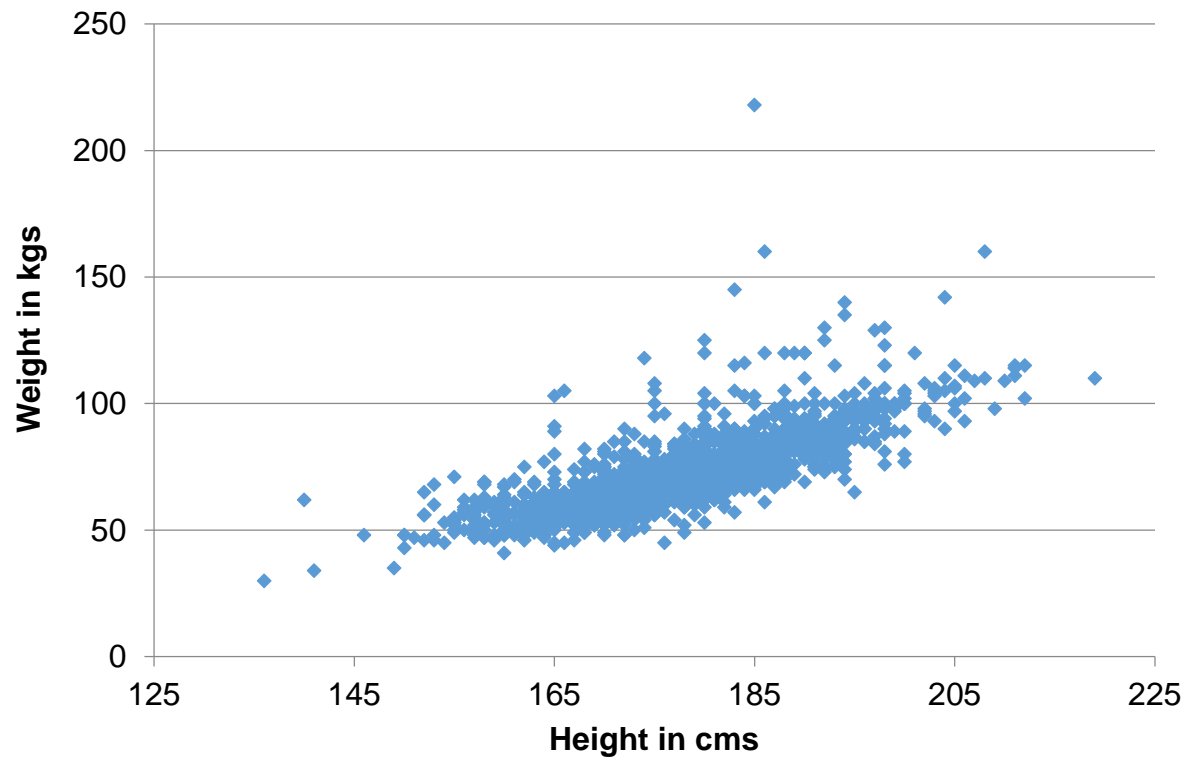




Heights and Weights of Athletes

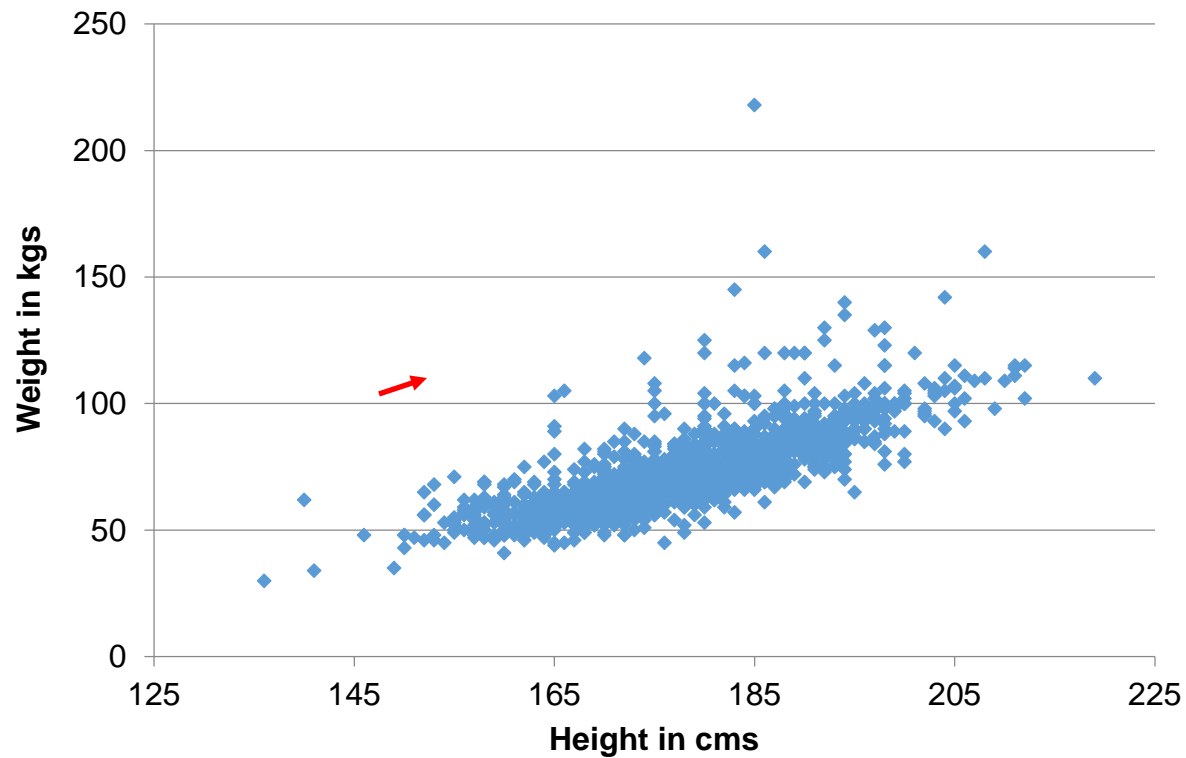


Heights and Weights of Athletes

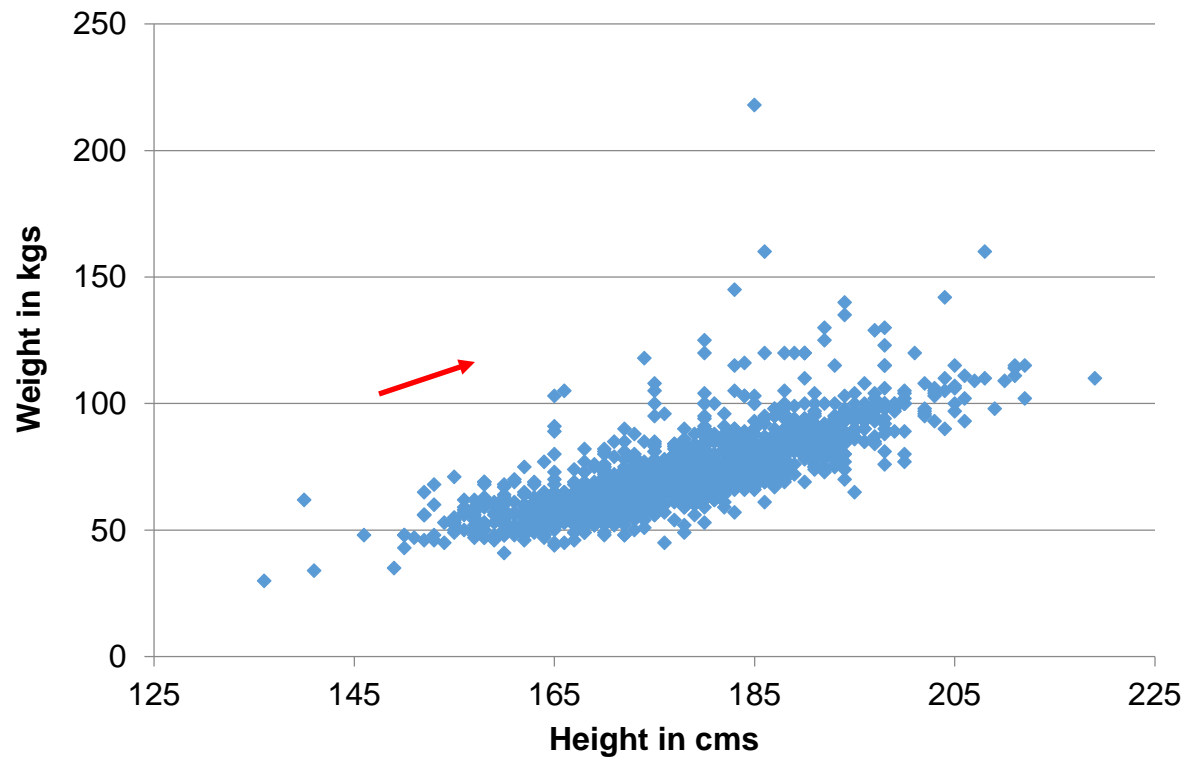




Heights and Weights of Athletes

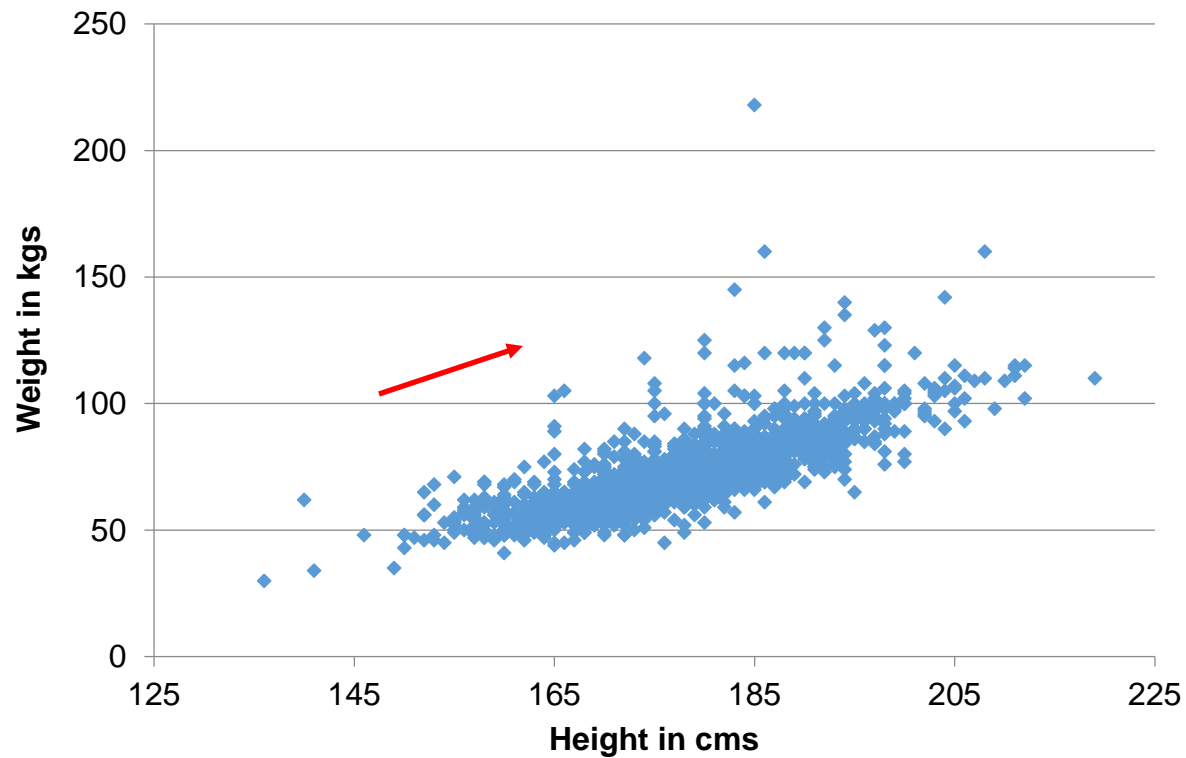


Heights and Weights of Athletes



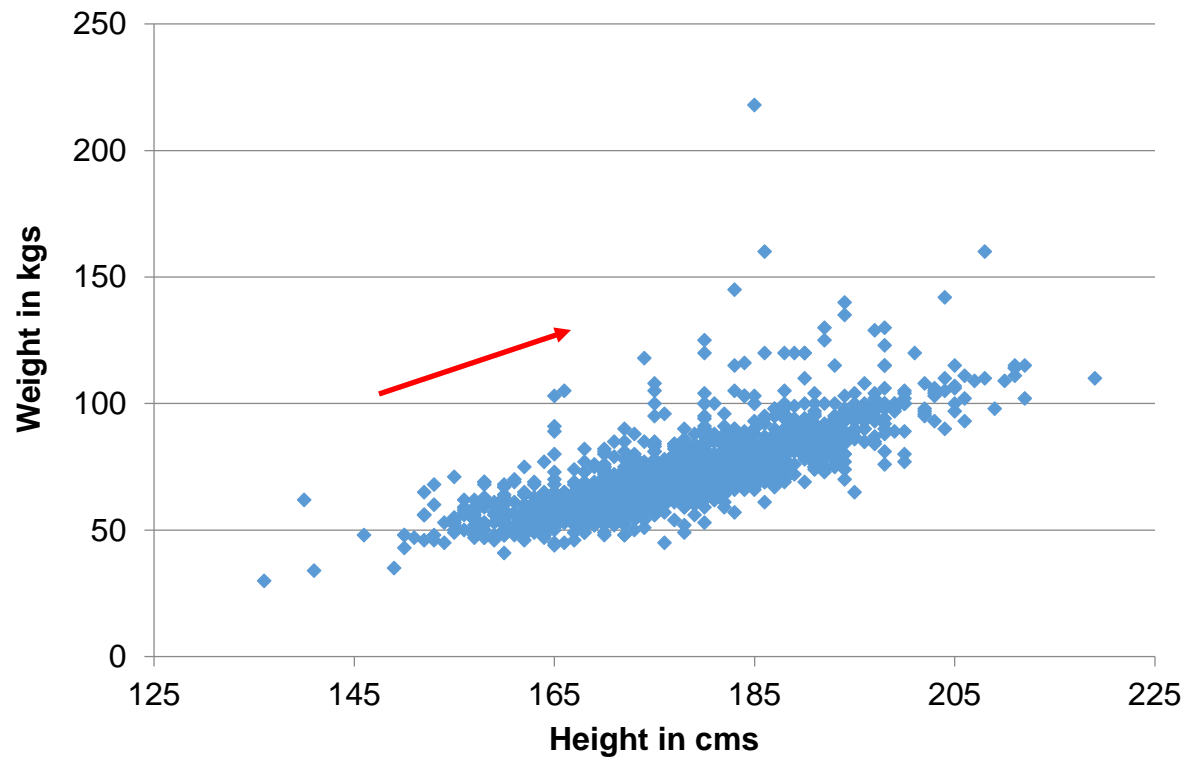


Heights and Weights of Athletes



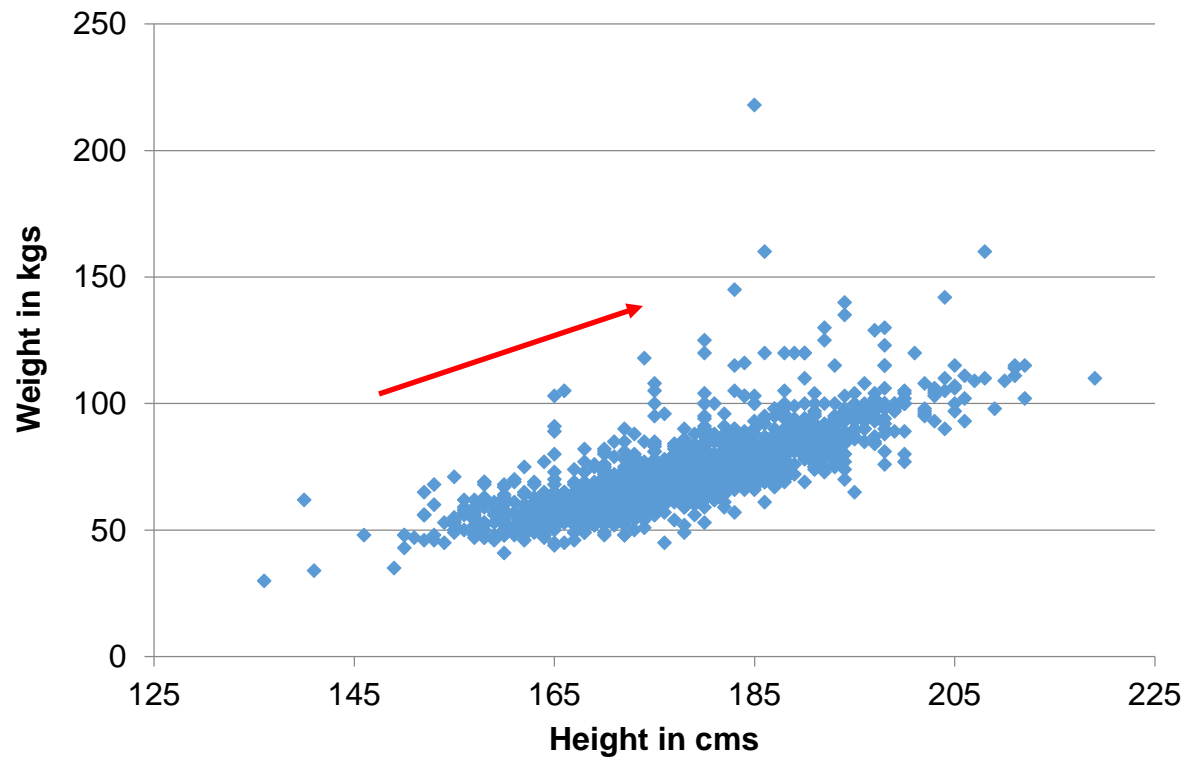


Heights and Weights of Athletes



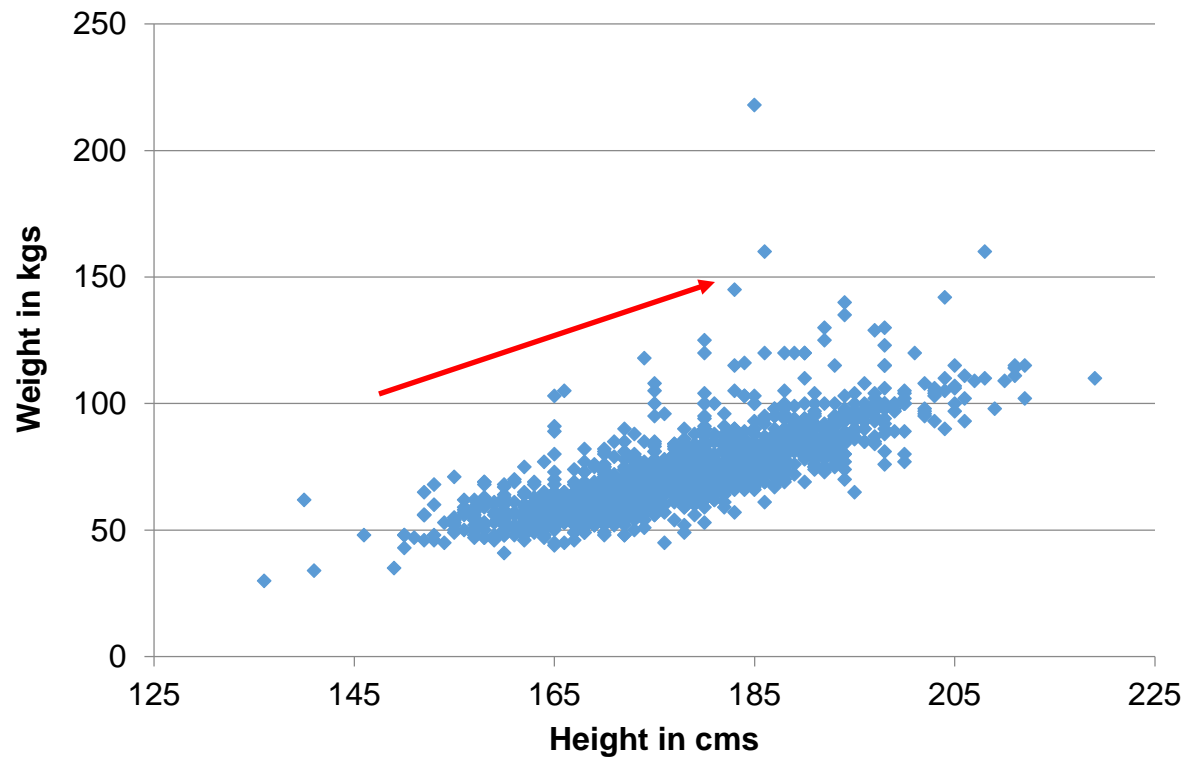


Heights and Weights of Athletes

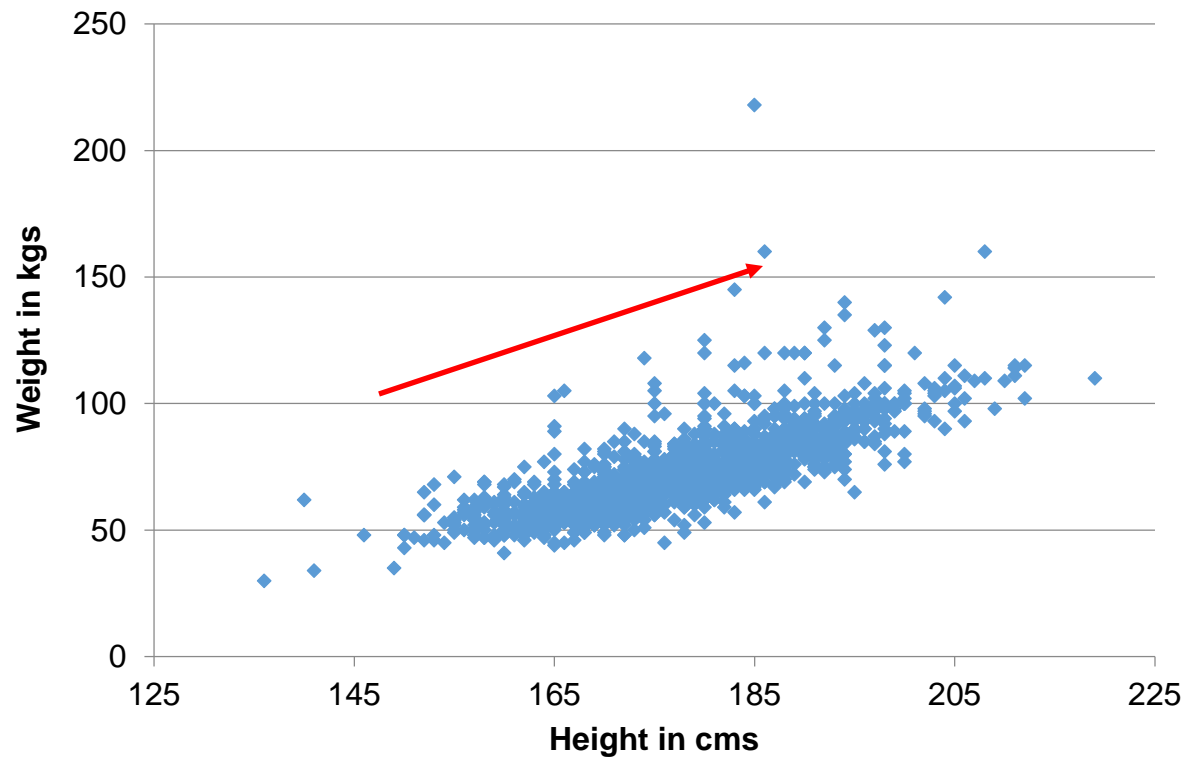




Heights and Weights of Athletes

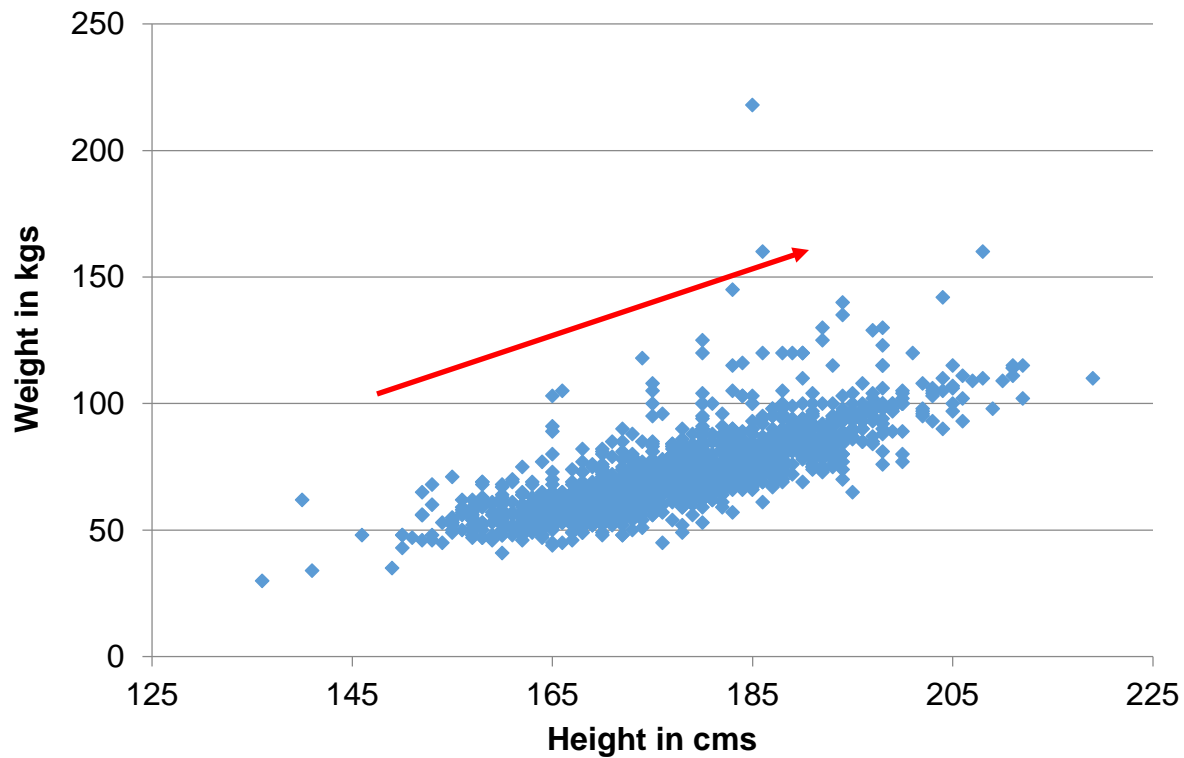


Heights and Weights of Athletes



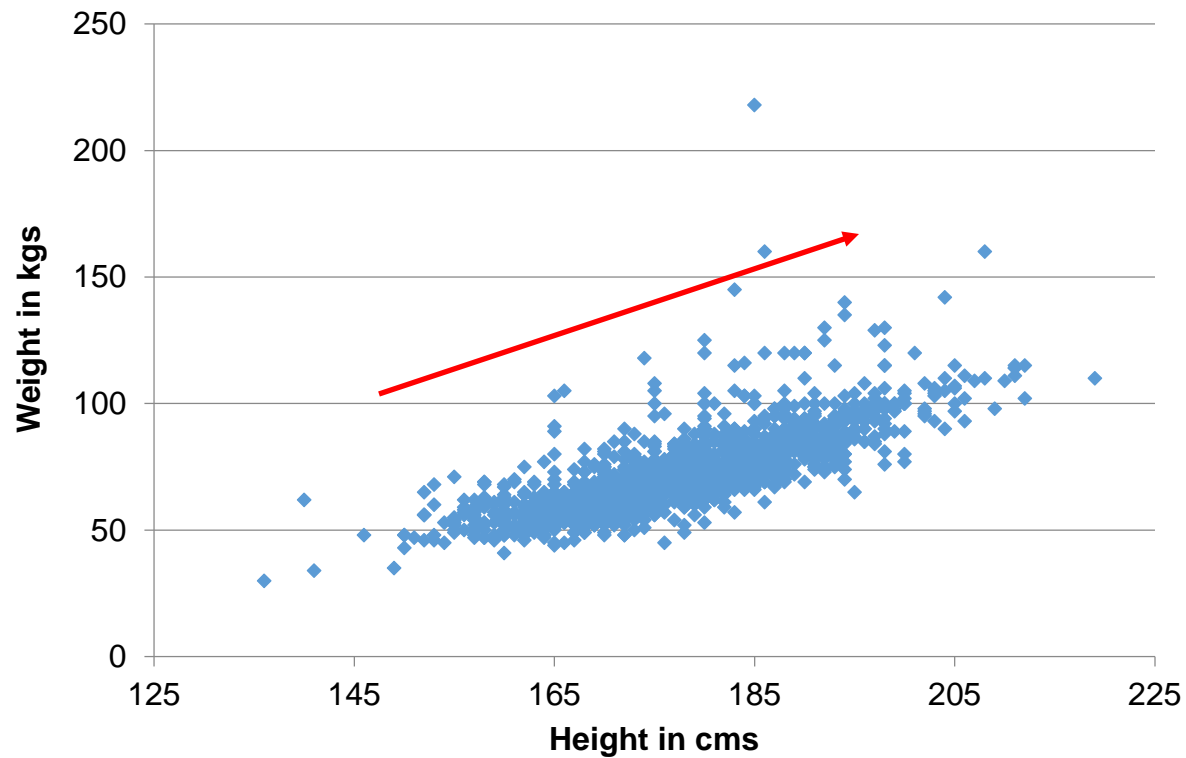


Heights and Weights of Athletes

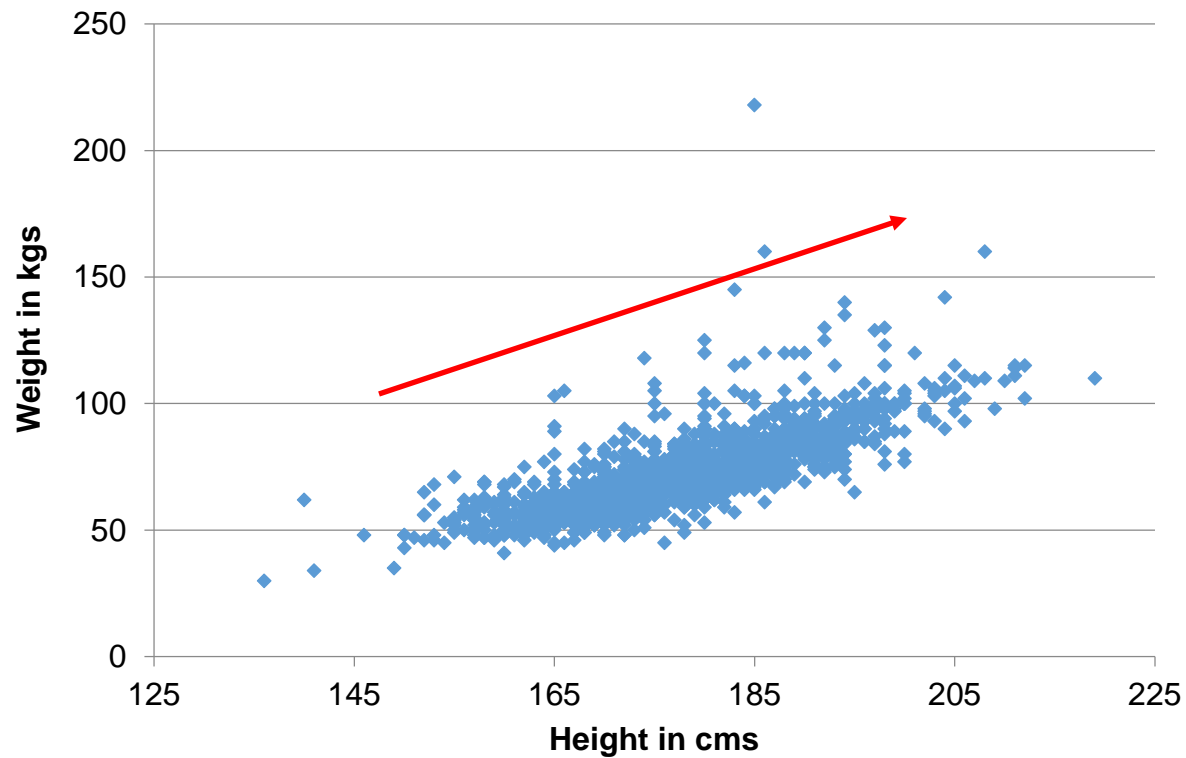




Heights and Weights of Athletes



Heights and Weights of Athletes





Measures of Association

Covariance

Correlation



Measures of Association

$$\text{Covariance} = \frac{1}{(n-1)} \sum_i^n (X_i - \bar{X}) (Y_i - \bar{Y})$$



Measures of Association

$$\text{Covariance} = \frac{1}{(n-1)} \sum_i^n \underset{\uparrow}{(X_i - \bar{X})} \underset{\uparrow}{(Y_i - \bar{Y})}$$



Measures of Association

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Excel Command (covariance)

=COVARIANCE.S(*range1*, range2)

Measures of Association

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