

Regression

Regression analysis is one of the most frequently employed statistical methods. In the next three videos we'll discuss the basics of regression analysis. In the first video we'll explain how we can find the regression line (the line that best represents the linear correlation between two quantitative variables in a scatterplot). You'll learn that the best fitting line is the line for which the sum of the squared **residuals** (vertical distances of the cases in your scatterplot to the line) is the smallest. We therefore talk about **ordinary least squares (OLS)** regression.

In the next video we'll show you how we can describe what the regression line looks like. This is very useful because it can help us make **predictions** about our dependent variable. We can make these predictions by means of the **regression equation** of which important ingredients are the **regression coefficient** and the **regression slope**. In the final part of this video we'll show you how you can also find the regression line by means of two rather simple formulas.

The third video in this section focuses on the question how we can assess how well a regression line fits the data under analysis. Here we'll introduce the so-called **r-squared**. It tells you how much better a regression line predicts your dependent variable than the mean of that variable, and it shows you how much of the variance in your dependent variable is explained by your independent variable.

