

5.1: The Linear Model

Learning Objectives

At the end of this section you should be able to answer the following questions:

- Explain the difference between Correlation and Regression Analyses.
- Explain why the linear model is important for Regression.

As we discussed in the chapter on correlations, correlational analyses focus on the relationship between two variables. What we will now be exploring is the association of multiple variables with a single dependent variable via a series of models known as Regression Models. In linear regression, the logic of the linear “line of best fit” that we discussed in correlation analyses is also used.

When we are looking at any linear regression model, we are producing and examining the straight line of best fit for predicting the relationship between two variables. This is the same standardised line that we examine when using correlation.

However, rather than simply plotting a line of best fit for cases of two variables, there is can be a predictive model based on more than one variable that is associated with a single dependent variable. Have a look at the link below, which presents the graph of a linear relationship from Chapter Four. The mathematical formula that produces this type of relationship, which is characterised by a straight line that is always increasing, is a linear model.

PowerPoint: Line of Best Fit

Have a look at the following slides while you are reviewing this chapter:

- [Chapter Four – Line of Best Fit](#)

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