GV207 HW3

Gabriel Edwards

# Question 1: Hypothesis

* Null hypothesis (): The effect of number of years of compulsory primary and secondary education on GDP per capita is zero.
* Alternative hypothesis (): The effect of number of years of compulsory primary and secondary education on GDP per capita is not zero.

# Question 2: Dependent variable and Measurement

* The dependent variable (DV) is the GDP per capita. It’s a national indicator that is measured annually and can be sourced from the world bank data repository which is available as a package in R dubbed WDI. The level of measurement for the GDP per capita is **continuous**.

# Question 3: Independent variable and Measurement

* The independent variable (IV) is the number of years of compulsory primary and secondary education. It’s a national statistic that is made public by UNESCO. It’s also available as an indicator in the R package called WDI. The level of measurment for the independent variable is **integer** which is a subset of continuous scale of measurement.

# Question 4: Statistical Test

* Linear regresssion would be used to estatblish a functional relationship between the dependent variable and the independent variable. Thereafter, a linear hypothesis procedure would be carried out to test the hypothesis.

# Question 5: Test Statistic

* The **F** statistic from the linear hypothesis procedure is the test statistic that would be used to determine whether or not the relationship between X and Y is significant.