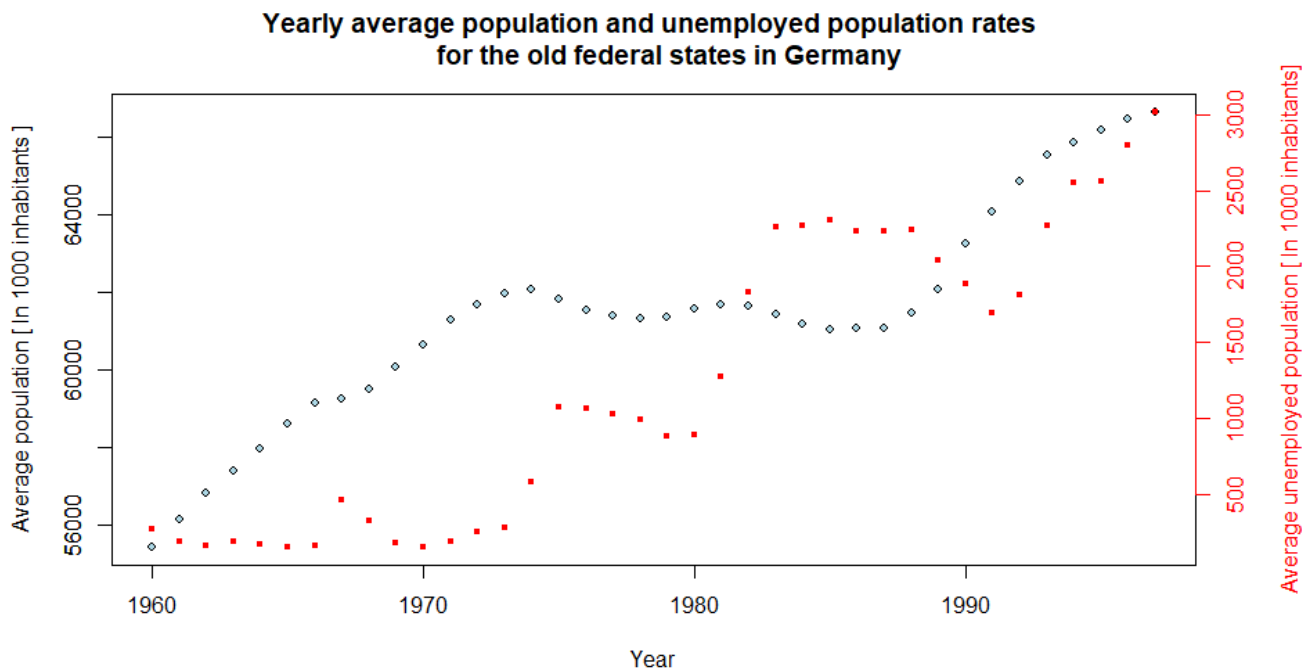
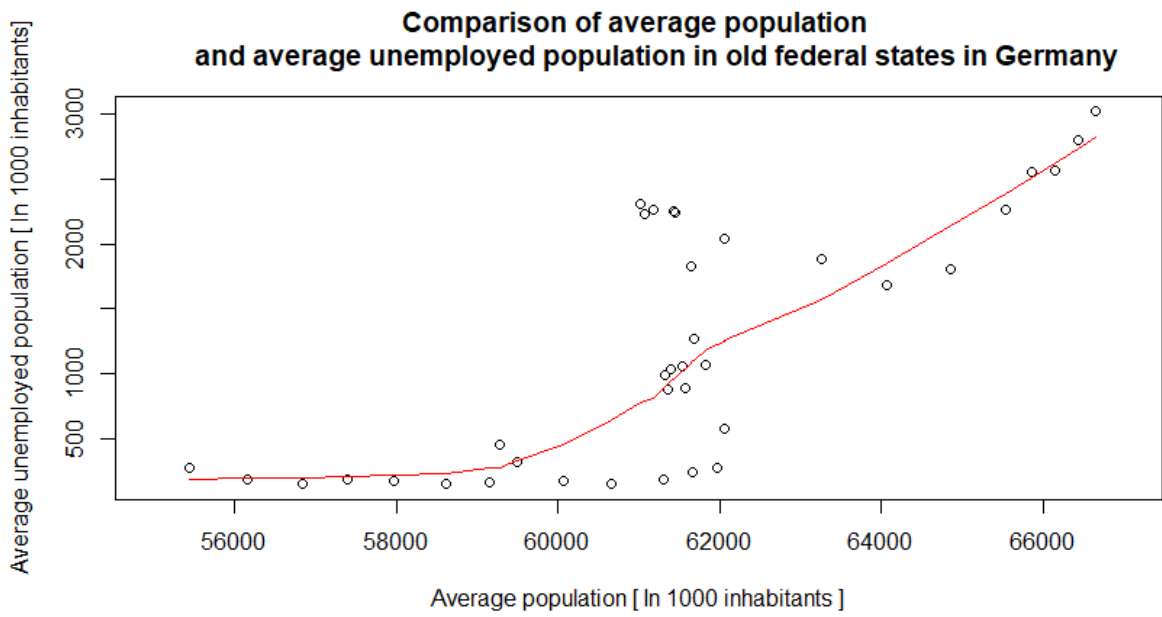


# 1. Assignment

In the first homework assignment, i will be working with data from asociacion of german pension insurance providers. Data is from the years 1960 to 1997, and we have information about the average population and average unemployed population in Germany. The dataset was obtained from the R library SMSdata.



In the first figure we see the evolution of population and unemployed population throughout the years. Note that the variables have a different axis. Both variables have a different evolution shape, which implies that the variables are not linearly dependent. In practice, that means that the unemployment rate is not constant and changes in time.



Second figure shows us the uneployed population given the total population. Present is also the non-parametric estimator of depence of population total on unemployment total. We see a positive dependence, but in some years where total population was similar, very different totals of uneployed people were observed.