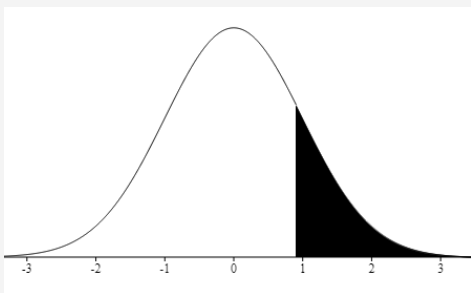
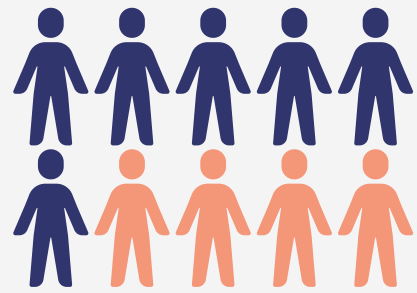


Project Part 2

Our aim is to investigate the relationship between the level of education and the amount of wages received by them based on average hourly wages.

DATA SET

Secondary data which contains the average wages by education based on the hourly wages of workers disaggregated by the highest level of education attained from the year 2010 to 2020.

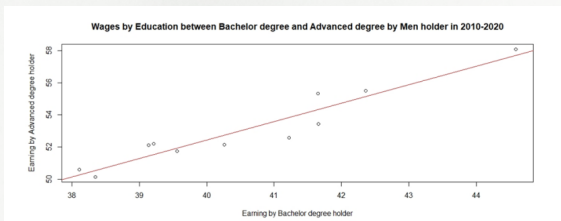


Hypothesis one-sample test

$$H_0: p = 0.15$$

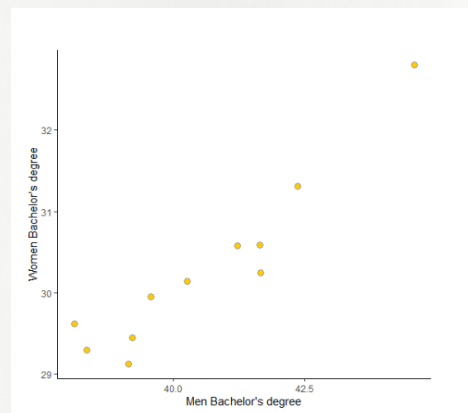
$$H_1: p > 0.15$$

fail to reject the null hypothesis. There is no sufficient evidence to support the statement that average wages of men High School in 2020 is 15% more than average wages of men and women High School in the same year



regression analysis

Since test statistics $t = 9.394 >$ upper tail critical value $t_{\alpha/2=0.025, df=9} = 2.262$, we reject the null hypothesis. There is sufficient evidence that wages for advanced degree holder affect by wages for bachelor degree.



Correlation Analysis

There is sufficient evidence to conclude that there is a linear relationship between the average wage of Male Bachelor's degree students and the average wage of Female Bachelor's degree students at the 5% significance level.

GOODNESS OF FIT TEST

$$H_0 : p_{2017} = p_{2018} = p_{2019} = p_{2020} = p_{2021}$$

$$\text{Test Statistic, } \chi^2 = 0.17723$$

$$\text{Critical Value, } \chi^2_{4,0.05} = 9.48$$

Since Test statistic is smaller than critical value, thus we fail to reject the null hypothesis, H_0 at $\alpha = 0.05$

We fail to reject the claim that the monthly wages for bachelor's degree education level is in equal proportions within the 5 years (2017-2021)