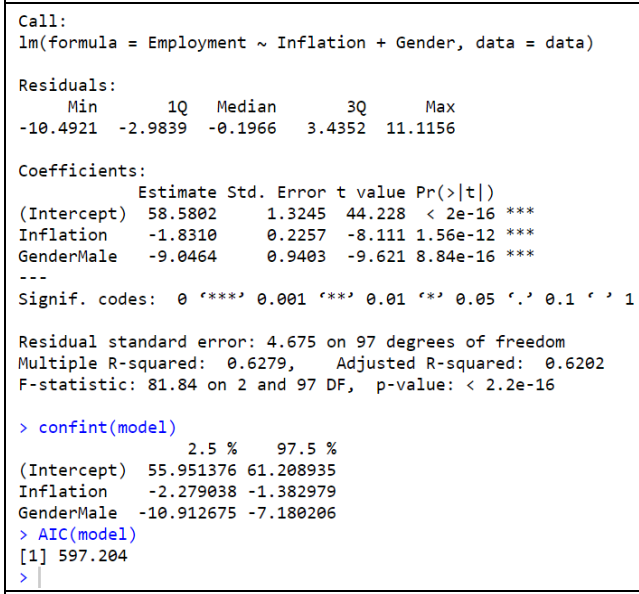
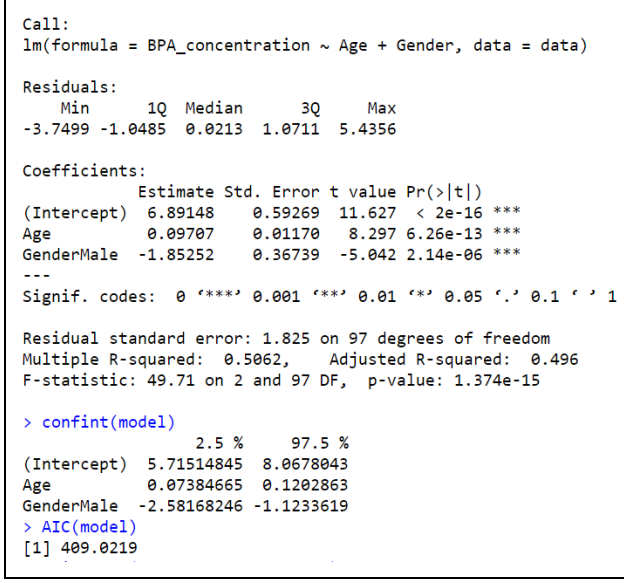
R output	Regression line formula	Significance	Model evaluation criteria
Call: lm(formula = Employment ~ Inflation + Gender, data = data) Residuals: Min 1Q Median 3Q Max -10.4921 -2.9839 -0.1966 3.4352 11.1156 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 58.5802 1.3245 44.228 < 2e-16 *** Inflation -1.8310 0.2257 -8.111 1.56e-12 *** GenderMale -9.0464 0.9403 -9.621 8.84e-16 *** --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 4.675 on 97 degrees of freedom Multiple R-squared: 0.6279, Adjusted R-squared: 0.6202 F-statistic: 81.84 on 2 and 97 DF, p-value: < 2.2e-16 > confint(model) 2.5 % 97.5 % (Intercept) 55.951376 61.208935 Inflation -2.279038 -1.382979 GenderMale -10.912675 -7.180206 > AIC(model) [1] 597.204 >	**Find the employment level for a male with the inflation level 2.273.** **Find the employment level for a female with the inflation level 10.867.**	**β1-coefficient p-value=** **β2-coefficient p-value=** **the model p-value=**	**$R^2_{adjusted}$=** **RSE=** **95% CI=** **AIC=**
Call: lm(formula = BPA_concentration ~ Age + Gender, data = data) Residuals: Min 1Q Median 3Q Max -3.7499 -1.0485 0.0213 1.0711 5.4356 Coefficients: Estimate Std. Error t value Pr(>|t|) (Intercept) 6.89148 0.59269 11.627 < 2e-16 *** Age 0.09707 0.01170 8.297 6.26e-13 *** GenderMale -1.85252 0.36739 -5.042 2.14e-06 *** --- Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 1.825 on 97 degrees of freedom Multiple R-squared: 0.5062, Adjusted R-squared: 0.496 F-statistic: 49.71 on 2 and 97 DF, p-value: 1.374e-15 > confint(model) 2.5 % 97.5 % (Intercept) 5.71514845 8.0678043 Age 0.07384665 0.1202863 GenderMale -2.58168246 -1.1233619 > AIC(model) [1] 409.0219	**Find the BPA level for a 50 y.o. female.** **Find the BPA level for a 10 y.o. boy.**	**β1-coefficient p-value=** **β2-coefficient p-value=** **the model p-value=**	**$R^2_{adjusted}$=** **RSE=** **95% CI=** **AIC=**

R output	Regression line formula	Significance	Model evaluation criteria
	**Find the employment level for a male with the inflation level 2.273.** 45.43[1] **Find the employment level for a female with the inflation level 10.867.** 38.70[2]	**β1-coefficient p-value=** <0.001 **β2-coefficient p-value=** <0.001 **the model p-value=** <0.001	**$R^2_{adjusted}$**=0.62 **RSE=4.68** **95% CI=** β1[-2.28;-1.38] β2[-10.91;-7.18] **AIC**=597.2
	**Find the BPA level for a 50 y.o. female.** 11.89[3] **Find the BPA level for a 10 y.o. boy.** 6.04[4]	**β1-coefficient p-value=** <0.001 **β2-coefficient p-value=** <0.001 **the model p-value=** <0.001	**$R^2_{adjusted}$**=0.50 **RSE**=1.83 **95% CI=** β1[0.07;0.12] β2[-2.58;-1.12] **AIC**=409

[1] Y(employment)= α + β1*X1(inflation) + β2*X2(gender)= 58.58-1.83*X1(inflation)-9.05*X2(gender)
Y(employment)=58.58-1.83*(2.273)-9.05*1=58.58-4.103-9.05=45.427

[2] Y(employment)= α + β1*X1(inflation) + β2*X2(gender)= 58.58-1.83*X1(inflation)-9.05*X2(gender)
Y(employment)=58.58-1.83*(10.863)-9.05*0=58.58-19.88=38.70

[3] Y(bpa)= α + β1*X1(age) + β2*X2(gender)= 6.89+0.10*X1(age)-1.85*X2(gender)
Y(bpa)= 6.89+0.10*50-1.85*0=6.89+5=11.89

[4] Y(bpa)= α + β1*X1(age) + β2*X2(gender)= 6.89+0.10*X1(age)-1.85*X2(gender)
Y(bpa)= 6.89+0.10*10-1.85*1=6.89+1-1.85=6.04