

Data Analysis Cps-Earnings

The main question of this assignment is: do women earn the same as men or is there a gap? And how much more do more educated employees earn than less educated employees? In this Assignment I choose elementary and second school teachers to observe and I examined patterns of earnings by gender and education level.

For the analysis, I used the cleaned version of the cps-earnings dataset. Out of the 2014 dataset, there were 149 316 individuals, which is less than half of the original amount, because it was filtered by working age, zero wage, missing values. By the elementary and second school teachers the number of observed individuals is 3636 and from this 82% of them are female (2982).

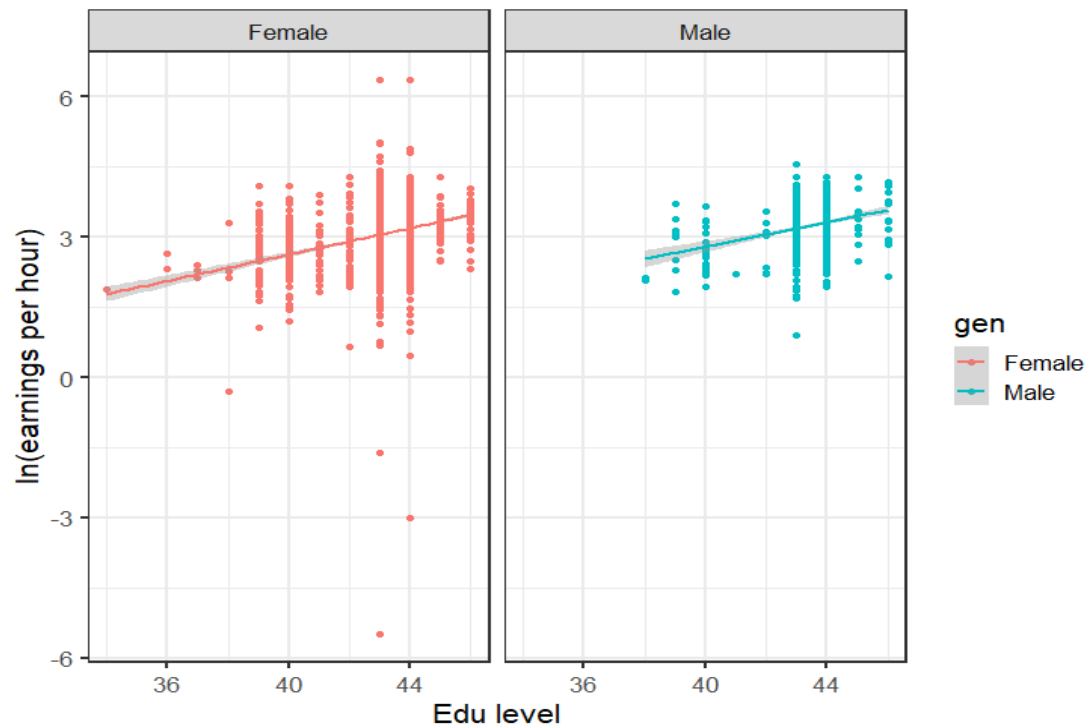
In the first summary table are the results of regressions: The first is a regression of ln wage on a female binary variable (one if the individual is female and 0 if a man); The second is a multiple regression similar to the first one but here I added the education level; The third regression is of the education level on the female binary variable.

	(1)	(2)	(3)
(Intercept)	3.236 *** (0.019)	-2.817 *** (0.359)	43.393 *** (0.042)
female	-0.141 *** (0.022)	-0.127 *** (0.021)	-0.103 * (0.047)
grade92		0.139 *** (0.008)	
N	3636	3636	3636
R2	0.010	0.095	0.001

*** p < 0.001; ** p < 0.01; * p < 0.05.

In the first column on average the female teachers earn 14.1 log points less (around 18%) than male teachers. Also, when we start to compare teachers of the education level (grade92) in the second column, female teachers earn 12.7 log points less (around 17%) than men on average. This number is only a bit better and shows a smaller difference than in the first case. So, we can say that female teacher on the same education level has a bit fewer earnings, however, in most cases, woman are much more educated and we still have this gap between them. Maybe this difference is only in this dataset, which is possible since the number of male teachers is only around 22% of the number of

female teachers.



The other reason could be that a higher percentage of the male teachers are more educated than their female partners. Also, data about female teachers have more extreme values, which can cause the higher pay gap between males and females. However, it is also very interesting to see that above the 43-education level both female and male teachers tend to earn less on average, so we can say that as an elementary teacher more educated does not always mean a better wage.