Data Analysis 2: Assignment 1

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Introduction

For the DA2 assignment1 I used the data taken from the Current Population Survey (CPS) which is the government monthly household survey of employment & labor markets.The data can be accessed in this **link**. I chose the Psychologist occupation ***1820***.

Data Analysis

I created a summary table displaying the descriptive statistics table as Table 1. Trying out multivariate regressions analysis in order to check if there's a gender based wage gap and for various education levels as well. Table 2 is a level-level regression which is the ln wage of females, showing that female Psychologiest earn 2% more than males, and this coefficient is significant at 1% significant level. We can also see the wage gap based on various educational attainments. In model 3, we can compare psychologists and their educational levels using Bachelor's as the baseline variable, those with Masters tend to earn 56% lesser than the ones with bachelors. Finally, we can run various regressions with education using the same base variable which can be seen in the last table. Here we can see that female Psychologists with masters earn 94% less than their male counterparts. For female psychologists with PhD they earn 105% less than Male psychologists with PhD.

Table 1 : Summary

	Mean	SD	Min	Max	Median	P95	N
w	33.51	26.74	1.52	333.33	29.90	64.30	176
lnw	3.37	0.53	0.42	5.81	3.40	4.16	176

	Model 1	Model 2	Model 3
(Intercept)	3.3890**	−2.2818	
	(0.0788)	(1.5510)	
female	−0.0288	0.0202	0.0197
	(0.0916)	(0.0898)	(0.0909)
grade92		0.1260**	0.0864**
		(0.0342)	(0.0022)
ed_Bachelor			−0.5845**
			(0.1480)
ed_Master			−0.5644**
			(0.0641)
ed_Profess			−0.4271*
			(0.2000)
ed_PhD			−0.4634**
			(0.0603)
Num.Obs.	176	176	176
R2	0.001	0.062	0.073
Std.Errors	HC1	HC1	HC1

* p < 0.05, ** p < 0.01

	Men	Women	All
grade92	0.0639**	0.0869**	0.0639**
	(0.0050)	(0.0000)	(0.0049)
ed_Bachelor	0.6626	−0.6604**	0.6626
	(0.4373)	(0.1523)	(0.4270)
ed_Master	0.4284	−0.5653**	0.4284
	(0.2591)	(0.0671)	(0.2530)
ed_PhD	0.6481*	−0.5009**	0.6481**
	(0.2505)	(0.0570)	(0.2446)
ed_Profess		−0.2322	
		(0.2247)	
female			0.9679**
			(0.2069)
female × ed_Bachelor			−1.2999**
			(0.4515)
female × ed_Master			−0.9476**
			(0.2538)
female × ed_Profess			−0.1630
			(0.2268)
female × ed_PhD			−1.0568**
			(0.2336)
Num.Obs.	42	134	176
R2	0.203	0.095	0.119
Std.Errors	HC1	HC1	HC1

* p < 0.05, ** p < 0.01