Problem Set 2
ECON 672 Winter 2022/2023
Due Jan 12, 2023

Fixed Effects

We want to assess the returns to marriage to see if there is a premium for men similar to Cornwell and Rupert (1997) and a penalty for women. There is self-selection into marriage, so we need to develop an estimator to try to identify the effect of marriage on earnings. First, we will develop 1- year panels from the Current Population Survey (CPS). Then, we will need to assess a pooled OLS and a fixed effects estimator. If we assume that there is no time-varying heterogeneity (strict exogeneity assumption), what are the returns to marriage?

Please use the CPS data from 2020 and 2021 found in GitHub (https://github.com/rowesamuel/ECON672/tree/main/Data/Introduction) or ELMS. We will use a Mincer equation $Y_i = f(education, experience, experience^2, treatment, covariates)$ to assess the marriage premium or penalty. Our outcome of interest will be the natural log of wage which will come from taking the natural log of "pternwa" in the CPS. Our treatment variable of interest will come from "pemaritl" in the CPS. This is a category variable that needs to be dichotomized into a binary variable (0 is not married and 1 is married). You will also need to develop potential experience from age (which is "prtage" in the CPS) and education from "peeduca" in the CPS. Please see the data dictionary for the CPS here: https://www2.census.gov/programs-surveys/cps/datasets/2022/basic/2022_Basic_CPS_Public_Use_Record_Layout_plus_IO_Code_list.txt

Question 1:
Append the monthly CPS files for 2020 and 2021 and develop a 1-year panel for individuals using the between 2020 and 2021. The panel should be strongly balanced with no gaps. The 1st interview should be in 2020 and the 8th interview should be in 2021. (Hint: use "hryear4 instead of hrmis for the time period in xtset.)

Question 2:
What are the returns to marriage for men and women? Estimate a pooled OLS regression and estimate a Fixed Effects (Within Estimator). What is the difference between the two estimators?

Question 3:
What are the returns to marriage for men or is there a marriage premium for men? What does the pooled OLS show? What does the Fixed Effects Estimator (Within Estimator) show?

Question 4:
What are the returns to marriage for women or is there a marriage penalty for women? What does the pooled OLS show? What does the Fixed Effects Estimator (Within Estimator) show?

Question 5:
Using a Fixed Effects estimator, can we interact race/ethnicity data with the marriage to estimate group level returns to marriage? Why or why not?