

ECO 82800
Panel Econometrics

Homework 4
Due: 2 May 2019

Use the wages.xls dataset that is discussed in Section 7.5 of Baltagi's textbook and attached to the email. The information about these data is as follows:

Source: The Panel Study of Income Dynamics, taken from Cornwell and Rupert (1988).
Description: Panel Data, 595 individuals over 7 years, 1976-1982.
Variables:
(1) EXP = Years of full-time work experience.
(2) WKS = Weeks worked.
(3) OCC = (OCC=1, if the individual is in a blue-collar occupation).
(4) IND = (IND=1, if the individual works in a manufacturing industry).
(5) SOUTH = (SOUTH=1, if the individual resides in the South).
(6) SMSA = (SMSA=1, if the individual resides in a standard metropolitan statistical area).
(7) MS = (MS=1, if the individual is married).
(8) FEM = (FEM=1, if the individual is female).
(9) UNION = (UNION=1, if the individual's wage is set by a union contract).
(10) ED = Years of education.
(11) BLK = (BLK=1, if the individual is black).
(12) LWAGE = Logarithm of wage.

Note that each group of 7 rows represent the seven years pertaining to a single individual. You need to add two variables to this dataset: "year" and "id". "year" runs from 1976 to 1982. "id" runs from 1 to 595.

1. Compute and report the descriptive statistics (means and standard deviations) for the twelve variables.
2. Replicate the results of Table 7.4 (you may use Stata's built-in commands: `xtreg` and `xthtaylor` or).
3. How many instruments does each of the two HT regressions use, and thus what are the degrees of freedom of the test for overidentification?
4. Compare the RE (or GLS), FE (or WE), and AM estimators: do the proper HT and Hausman tests to figure out your recommended estimator.