

Assignment #3**DUE: December 3rd before class (1:00 PM)**

You may use either STATA or R to complete this assignment. Please submit your STATA or R output along with your assignment. In STATA this can be done by creating a .log file, and in R can be done by using the `sink()` function. On the first line of your code after the .log or sink() has been inputted please also include the following:

In STATA: `display "`c(username)'"`

In R: `name <- Sys.info()`
`name[7]`

Use data derived from **Dataset 2.xlsx** in the Assignments folder on Quercus. **YSRF** represents individual income in thousands of dollars, **HSRF** is an index of individual health status (higher values correspond to better health), **EXPER** is years of work experience, **AGE** is age measured in years and **HP** is an indicator variable for the average lifetime health status of an individual's parents (i.e., inherited health status).

Your task is to find the data generating processes (DGPs) for income (YSRF) and health (HSRF).

- Investigate whether income and health are simultaneously determined in this system.
- Is the system identified?
- Estimate your final model, and discuss your results in detail.

Hint: AGE enters the DGP in one of the common non-linear forms. Total marks 40.

The assignments must be submitted on Quercus in both MS word and .pdf formats before 1 p.m. on the dates indicated in the outline. Late assignments will be penalized at the rate of 10% per day