Student Project Instructions

Course: Econometrics

The aim of the project is to challenge students to analyze a dataset using tools obtained in class. To complete the project a student should follow the steps below:

1. Think of a research question. These can be considered valid research questions: What are the determinants of wages (company profits, smoking, drug usage, performance in school etc.)? How big is the gender wage gap? What is the effect of company ownership on profits (training program on employee performance, increase of police force on crime reduction etc.)?

2. Choose a dataset that allows you to address your research question. The data should normally come from GRETL sample files (File \rightarrow Open data \rightarrow Sample file), however you can choose any other data file not listed in GRETL.

3. Provide basic descriptive statistics to characterize your dataset and introduce your research question.

4. Suggest a basic linear regression and explain what signs of coefficients you expect to get.

- 5. Obtain estimates and interpret them.
- 6. Test several hypotheses and test them.
- 7. Estimate non-linear effects using dummy variables or squared terms.

8. Think of identification problems in your regression and offer alternative methods (IV, 2sls, different experimental approach or simultaneous equations alternative). Justify.

The project will be done by a group of two people. Each group has to prepare a short presentation for maximum 7 minutes plus 3 minutes Q&A. It is not required to submit any files, presentation is all that counts toward your grade. The presentation date is May 5th. Please, register your dataset and choose a time slot in the <u>excel spreadsheet</u> latest until <u>April 21st</u>. Also, state your research question to make sure no group has a similar research idea to present. In addition, make sure that the dataset of your choice has not yet been taken by some other group.