

# Problem Set II

## Econometrics

Master in Big Data Management

1. At the following address <http://people.stern.nyu.edu/wgreene/Econometrics/PanelDataSets.htm> you find many datasets in a panel data form. Choose one of them.
  - (a) State your research question.
  - (b) Provide some descriptive statistics / explanatory data analysis.
  - (c) Present your model and explain your choices in variable selection, functional form and methodology in general (do not forget to show your R code).
  - (d) Provide results and interpretation.
2. Consider the dataset contained in Table F7.3 you can find at <http://pages.stern.nyu.edu/~wgreene/Text/Edition6/tablelist6.htm>
  - (a) Analyze the likelihood that an individual's application for credit card is accepted considering a subset of the variables available in the dataset. In particular, make sure you can answer the following questions:
    - Are self-employed people more likely to have their application accepted?
    - Is living in a rented house seen in a good way by the credit card company? Does this change when we also consider an interaction with income?
    - Is age linearly related to the probability of having the credit card application accepted?
    - Discuss your results.

Alternatively:

1. You can use the survey dataset used for PS I to answer the following questions:
  - State your research question.
  - Provide some descriptive statistics / explanatory data analysis.
  - Present your model and explain your choices in variable selection, functional form and methodology in general (do not forget to show your R code).
  - Provide results and interpretation.
2. For the second assignment (regarding binary dependent variables), you should:
  - Decide, among all the available variables, which will be the dependent variable and how to build it.
  - State your research question.
  - Present your model and explain your choices in variable selection and functional form.
  - Discuss your results.

Each group will make a presentation during the class the 25/06/2017 – 20 minutes plus 10 for questions.