MA-600: Microeconometrics / Empirical Microeconometrics

General Information on Problem Sets/Group Presentations

Students will be provided with several problem sets during the semester accompanying the topics covered in the theoretical sessions. In order to fully benefit from the course and to properly prepare for the exam, all participants are expected to solve these exercises.

During the practical sessions, students are asked to present their solutions for the problem sets in group presentations. Every group consists of up to 3 students and has to hand in the solutions to 4 problem sets in total (all 4 in written form; for 2 of them an additional oral presentation is required). Assignment of problem sets to student groups will be communicated by email (see below).

- **Schedule:**
  Oral presentations are scheduled in the computer lab 3.01.1.65a during the Monday sessions 10.00-12.00 (if not noted otherwise) on May 21, May 22 (Tuesday session, Room 3.06.H06), June 04, June 05 (Tuesday session, Room 3.06.H06), June 18, June 25, July 02, July 09.

- **Registration:**
  Binding registration and assignment to groups will take place on Monday/Tuesday May 07/08.

- **Problem sets:**
  The problem sets are distributed approximately 10 days prior to the presentation dates via Moodle. At the same time, we will inform the groups that have to hand in / present their solutions via email about their assignment. The problem sets consist of a data set and a number of questions referring to the data. The assigned groups are asked to hand in a short written solution (4x) and present their results in a brief oral presentation during class (2x).

- **Written solutions:**
  We ask the assigned groups to write up the solutions (Garamond or Times New Roman font 12pt 1.5 line spacing, margins: 2cm left/right) and hand them in at 8.00am latest (!) on the day of the presentation. Email the pdf or doc(x) file to martin.weissenberger[at]uni-potsdam.de indicating your group members names and problem set. The write-up should contain two parts per question:

  1. One part is the written answers to the questions raised in your problem set. Make sure to directly answer the questions raised in your problem set. Always give interpretations of your results and justify your answers by your empirical findings. If you conduct a test or use an estimation technique other than OLS, make sure to give the intuitive idea and, for instance, the null and alternative hypothesis or the like.

  2. The other part consists of the Stata commands and output that shows how you got the results. You can copy the text passages directly from your log-file (use Courier New or Typewriter font 10pt single line spacing for these text pasages). Make sure to adequately comment the Stata input allowing quick identification of the commands leading to each output. It should not include everything you tried – just the final set of commands and output that you need to verify your answers.

  The submitted solutions are distributed on paper to all students before the presentation.

- **Presentations:**
  In your oral presentations, you should briefly describe the general context of your problem set and give key descriptives of the relevant variables in your data to familiarize the other students with the general setting. Answer the raised questions of your problem set by running your do-file step by step. Explain your strategy to obtain the output and give a sound interpretation of your findings. In case you are asked to derive a formal result you can use the white board. We do not expect you to prepare slides (Powerpoint or the like). Presentations should not take longer than 20 minutes (+10 minutes comments/discussion afterwards).

- **Access to Stata:**
  In order to conduct your empirical work, you have the possibility to use Stata in the computer labs of the university at any time during opening hours. On top of that, the computer lab 3.01.1.65a is reserved exclusively for students of this course Fridays from 14.00 to 16.00 to conduct their group work.

- **Stata assistance:**
  Martin Weißenberger will be present in the computer lab 3.01.1.65a Fridays from 14.00 to 16.00 on 4 dates during the semester to help and assist students having problems using Stata. The dates are May 11, May 25, June 08, June 22.

- **Performance:**
  The performance in the 2 presentations and 4 write-ups will count 1/3 of the final mark for the practical session. The remaining 2/3 will be determined in a 60 minute written exam at the end of the semester. The exam will take place on Tuesday July 31, 14.00-15.00. A successful completion of the practical tasks is a pre-requirement to participate in the final exam.

- **Illustration:**
  Your submitted write-up should roughly look like this:

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Question 2: Run the regression $log(wage) = \beta_1 + \beta_2 educ + \beta_3 exper + u$ **and give an interpretation of the estimated return to education. Is it statistically significant?**

```
. * generating log(wage)
. gen lwage=ln(wage)

. * OLS-Regression
. reg lwage educ exper

      Source |       SS       df       MS              Number of obs =     935
-------------+------------------------------           F(  2,   932) =   70.16
       Model |  21.6776613     2  10.8388306           Prob > F      =  0.0000
    Residual |  143.978622   932    .1544835           R-squared     =  0.1309
-------------+------------------------------           Adj R-squared =  0.1290
       Total |  165.656283   934  .177362188           Root MSE      =  .39304


------------------------------------------------------------------------------
       lwage |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        educ |    .077782   .0065769    11.83   0.000     .0648748    .0906892
       exper |   .0197768   .0033025     5.99   0.000     .0132956     .026258
       _cons |    5.50271    .112037    49.12   0.000     5.282836    5.722584
------------------------------------------------------------------------------
```

The estimated return to education is approximately 7.8% indicating that one year of additional schooling yields c.p. an average increase in monthly wages of about 7.8%. The corresponding p-value is close to zero showing statistical significance at a very small level ($p < 0.001$).

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