

Topic 10: Problem Set

1 The Aim

You will understand in all practical details the Monte Carlo simulation performed by Bertrand/Duflo/Mullainathan (QJE 2004). You will also extend their study to check the performance of current suggestions in the literature.

2 The Data

You will need weakly earnings of women from the CPS. You can either download the data (Merged Outgoing Rotation Groups) from the NBER website <http://www.nber.org/data/morg.html> or pick up a CD with the extracted 1979 to 1999 earnings data in my office.

3 The Task

- 1) Replicate Bertrand/Duflo/Mullainathan (QJE 2004) Table VIII. You may want to use more than the 200 replications used by BDM.
- 2) Do a similar Monte-Carlo experiment where you perform the t -test as proposed by Besley/Conley/Hansen (2008). Choose the total number of years (T) and states (N) reasonably.

4 Hand in

- Stata data file with weakly earnings for women from 1979 to 1999.
- Do file(s) which perform the Monte-Carlo experiment.
- The result tables for task 1 and task 2.
- A very short discussion of your results.

5 References

- Bertrand, M., E. Duflo and S. Mullainathan (2004), How Much Should We Trust Differences-in-Differences Estimates?, *Quarterly Journal of Economics*, 119(1): 249-275.
- Besley C. A., T. G. Conley and C. B. Hansen (2008), Inference with Data Using Cluster Covariance Estimators. Mimeo Chicago GSB.