

Model Selection and Averaging
Summer School in Economics and Econometrics
University of Crete
July 22-26, 2019

Exercise 2

Use the CPS (cps09mar) dataset posted at
- <https://www.ssc.wisc.edu/~bhansen/econometrics/>

The data is posted in text, excel, and stata formats.

A data description is posted and is included here.

The recommended software is R.

- 1) Extract the same data as in Exercise 1, use the same subsample, and make the same transformations. Estimate the same wage regressions.
- 2) We are interested in the effect of marriage on wages. Let the focus parameter (in the terminology of the Focused Information Criterion) be the coefficient on the variable *married*.
 - a) For each model, report this coefficient estimate
 - b) Report a standard error for this estimate robust to heteroskedasticity
 - c) How do we interpret this parameter and estimates? That is, what do these numbers mean in terms of the impact on expected wages?
 - d) Compute the FIC treating using this parameter as the target parameter
 - e) Which of the seven estimators do you select for the purpose of estimating the marriage effect?
 - f) Comment and interpret
- 3) In Exercise 1 you calculated the BIC and AIC for each model
 - a) Calculate the SBIC and SAIC weights for each model
 - b) Comment and interpret