

## README

The files attached were used to generate the results presented in the empirical section and in the supplementary appendices of the paper “Inference on Counterfactual Distributions” by Chernozhukov, Fernandez-Val and Melly.

Note that the attached files do **not** provide general purpose codes. If you want to apply the estimators and inferential methods suggested in the paper to other datasets you can find general-purpose codes on the internet pages of the authors. You can find a R package on the webpage of Ivan Fernandez-Val (<http://people.bu.edu/ivanf/research.html>) and Stata commands on the webpage of Blaise Melly ([http://www.econ.brown.edu/fac/Blaise\\_Melly/code\\_counter.html](http://www.econ.brown.edu/fac/Blaise_Melly/code_counter.html)).

The files “un79rw.dta” and “cps88.dta” contain the data sets employed both in the empirical section of the paper as well as for the simulations presented in the supplementary appendix. These data sets were obtained from the website of Nicole Fortin ([http://faculty.arts.ubc.ca/nfortin/dfl\\_cps.zip](http://faculty.arts.ubc.ca/nfortin/dfl_cps.zip)) and were used in DiNardo, Fortin and Lemieux (1996).

The file “data preparation.do” is a Stata do file that prepare the data for the empirical analysis. It produces the file “data.dta” that is used as an input for “estimation dr.do”, “estimation cqr.R”, “estimation cqr.do”, “figures and tables.do”, “simulations.R”.

The file “estimation dr.do” estimates the effects of interest using the distribution regression approach. It also bootstraps these estimates in order to do inference. Note that the commands in this file are extremely computationally intensive and will take a long time to finish. Therefore, we have also attached the results produced in the folder “results”.

The file “estimation cqr.R” is an R file that estimates the censored quantile regression coefficient. The estimation of the coefficients is performed in R because the Stata command is sensibly slower and less reliable. After running this file in R, the file “estimation cqr.do” performs the estimation of the counterfactual distributions in Stata.

The file “figures and tables.do” uses the results performed by “estimation dr.do” and “estimation cqr.do” (these results are also attached in the folder “results”) and generates the figures and the tables found in the paper and in the supplementary appendix.

The file “simulations.R” is an R file that performs the simulations presented in the supplementary appendix B. It also generates the Figure B1 and the tables B1 to B6.