This file contains instruction for replication of Mourifie and Wan (2016): "Testing Local Average Treatment Effect Assumptions"

1. File and Data Description

1.1) there are three sets of files. Each set contains Stata Do file and data for one of the empirical application we investigated in the paper.

1.2) the first set of files consists Stata do file (*A_lottery_local.do*) and data (*Angrist 1991 SIPP.dta*) used for the Angrist (1991) application.
The key variables are:

"nvstat", which we renamed as "D", denotes the veteran status (equals to 1 if is veteran, 0 otherwise)

"Y" is the log of wage

"X1", "X_2" and "X_3" are three demographic variables, representing education, age and race. For details definition, see the paper.

"rsncode", which we renamed as "Zone" in the Stata do file, is the draft eligibility variable.

1.3) the second set of files contains State do file (*AE_sex_local.do*) and data used for the Angrist and Evans (1998) application. For this application, we already split the whole sample into 24 subsamples by gender, education and age. Those samples are named as *"smallsample_nomass_xx.dta"*, where xx is the subsample ID. For details, please see our paper. The key variables are Ybar1 and Ybar2, which refer to the variables to be taken conditional expectation (see equation (5) of our paper), that is,

Y: log wage

Ybar1=c1*D*(1-Z)-c0*D*Z

Ybar2=c0*(1-D)*Z-c1*(1-D)*(1-Z)

where D=1 indicating having more than 2 children and Z=1 indicating first two children are of same sex. c0 and c1 are Probability of Z=0 and Z=1, respectively.

1.4). the third set of files contains Stata do file (*Card.do*) and data (*card.dta*) used for the Card (1993) application. Key variables are

Y: log wage

Ybar1=c1*D*(1-Z)-c0*D*Z

Ybar2=c0*(1-D)*Z-c1*(1-D)*(1-Z)

where D=1 indicating college education and Z=1 indicating there is a college in town. c0 and c1 are probability of Z=0 and Z=1, respectively.

There is also a "group" variable which divides whole sample into different subsamples based on race, metro/non-metro and southern/non-southern. See paper for details.

2. To implement the Stata Do files, please take the following steps

2.1) install CLKR-package using the following command in Stata.

ssc install clrbound

2.2) install Jann's (2005) moremata package using the following command in Stata.

ssc install moremata, replace

2.3) run the Stata do file of the application which the reader would like to replicate.

2.4) for more information about CLKR package, please see: http://www.homepages.ucl.ac.uk/~uctparo/.

2.5) It took our computer (Inter Core i7 CPU, 3.47Hz, 12GB RAM) about 7 hours to finish the test on sample of size 25000. Please make sure you use the Stata MP or SE version and set the "matsize" to 11000.