

**Readme file of R codes and datasets for**  
**“Is being the only child harmful to psychological**  
**health? Evidence from a local instrumental variable**  
**analysis”**

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**Description**

This folder contains contains several R code files for implementing the approaches proposed in the paper “Is being the only child harmful to psychological health? Evidence from a local instrumental variable analysis” by Zeng,Li and Ding, and the dataset from the empirical applications of the paper.

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**R Code Files**

`Data.Reading.R`

Loading the CFPS data

`Data.Loading.R`

Transform the data into the format for JAGS interface

JAGS_MODEL.R	Functions define the model used in JAGS interface
JAGS_Sampling.R	Main Script to perform MCMC, save the posterior sample
Firststage_Plotting.R	Plotting the Probability of being treated, produce results for Figure 1
Average_Estimands.R	Calculate the estimands defined in average, as well as the MTE, produce results for Figure 2
OtherMethods.R	Implement other methods as comparison, produce results for Figure 5
Utility_Functions.R	Contain all the utility functions for previous files
Average_Utility_Func.R	Required functions for <code>Average_Estimands.R</code>
OtherMethods_Utility_Func.R	Required functions for <code>OtherMethods.R</code>
JAGS_Model_SA.R	JAGS model config for sensitivity analysis.
JAGS_Sampling_SA.R	Perform MCMC for sensitivity analysis
Figure1,2,3,5.R	Draw Figure 1-5 in the paper
simulation_help.R	Some helper functions to run simulations.
simulation_main.R	Main script to run simulation and draw Figure 8.
PS_Poster_CDF.R	Plot the empirical CDF for principal strata, Figure 4.
Main_Outline.R	Outline the procedures to produce all the results This single script can replicate all the results

## Datasets

IFPPR.txt	Data for the instrumental variables
CFPS_Cleaned_Data.RData	Cleaned CFPS data
cfps2010adult_report_nat092014.dta	Original CFPS data, can be downloaded from <a href="http://www.issp.pku.edu.cn/cfps/EN/">http://www.issp.pku.edu.cn/cfps/EN/</a>