

Replication instructions for

“THE WITHIN-COUNTRY DISTRIBUTION OF BRAIN DRAIN AND BRAIN GAIN EFFECTS: A CASE STUDY ON SENEGAL”

This document provides an overview of the data files required to replicate the findings of the "*The Within-Country Distribution of Brain Drain and Brain Gain Effects: A Case Study on Senegal*". The replication files are organized into two separate folders:

1. MATLAB
2. STATA

Each folder contains files that can be executed independently of one another, and all the essential data necessary for replication is contained within each respective folder. A detailed description of the contents of each folder is provided below.

MATLAB

This folder comprises the raw data file and MATLAB codes essential for simulating the model and conducting all quantitative analyses. The MATLAB files are categorized into two groups:

1. Primary m-file: This file must be executed to generate all the results simultaneously.
2. Secondary m-files: These files are meant to be called by the primary MATLAB file.

Primary m-file

- *Master_simulation_JODE.m* – generates all the simulation results calling secondary files.

Secondary m-files

- *Initial_Equilibrium.m* – set of equations that define the initial equilibrium
- *Simulation_autarky.m* – simulation of the counterfactual equilibrium when all borders are closed (i.e., migration not possible)
- *Simulation_domestic_autarky.m* - simulation of the counterfactual equilibrium when internal borders are closed while external borders are kept opened.
- *Simulation_oecd_autarky.m* - simulation of the counterfactual equilibrium when external borders are closed while internal borders are kept opened.

STATA

This folder is divided into four sub-folders: (1) Data, (2) Do-Files, (3) Figures, and (4) Processed.

- **Data** contains the Matlab output from MATLAB.
- **Processed** contains the combination of the different policy simulations.
- **Figures** contains two sub-folders:
 - Fig5 containing the panels of figure 5;
 - Fig6 contains panels of figure 6.
- **Do-Files**
 - *data-preparation-JODE.do* – this combines together the results from the different counterfactual exercises;
 - *Figure_5.do* – this replicates the panels of figure 5 in the indicated order;
 - *Figure_6.do* – this replicates the panels of figure 6 in the indicated order.