

# Instruction to Replicate Results

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Please run all files in the order provided below. In case you experience any trouble in replicating our results, please contact us either at *volker.tjaden@uni-bonn.de*, or *s3fewell@uni-bonn.de*.

We take some numerical routines from outside sources. The routine for computing the Gini-coefficient is provided by Oleg Komarov. The OLS routine is from the LeSage Econometrics toolbox. Johannes Pheiffer was so kind to provide us with the Kalman filtering routine. The minimizer used within is written by Chris Sims. All errors within are our own responsibility.

## 1 Model (simple)

- Run *main.m* to solve the model presented in Section II and obtain Figures 1 – 3 and A1 – A2.

## 2 Model (full)

- Run *main.m* to solve the baseline model, simulates the data and generates all moments reported in Tables 5, 6, 7 and E1 and Figure 6.
- Run *main\_standard\_full.m* This solves the job ladder model, simulates the data, creates the statistics for Tables 6 and 7 and creates Figure 6.
- Robustness: Run *benefits\_71.m* to simulate the model with a total replacement rate of 71 percent. Run *main\_sens.m* to simulate the model with the share of reallocation shocks set to five percent.

## 3 Data (Stata files)

- Our folder structure closely follows the one used by the CEPR<sup>1</sup> (see also <http://ceprdata.org/sipp-uniform-data-extracts/sipp-programs/>). Please note, all files are written on MAC OS X and when used in Windows, forward slashes need to be changed in backslashes. Download the core, the full panel and the revised job id file for the 1993 SIPP from the NBER homepage and place them into a folder *rawdata*. Further folders required are *output*, *programs*, *tmp*. Place into *programs* all files provided by the NBER needed to extract the data and convert them to Stata format. In the folder *programs*, run *extract\_93.do* to call the NBER extraction files and divide the full panel file into three smaller subpanels.

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<sup>1</sup>Within all files, the user needs to change the directory appropriately.

The subfolder *recode* contains *master.do*, which closely following the CEPR, creates four panels with worker observables. Required subfiles are:

1. *set\_a*
2. *set\_b*
3. *set\_d*
4. *set\_h*
5. *monthwave93*
6. *revised\_prep*

Using the same folder structure, repeat the same procedure for the 1996 core files. These do not require a full panel data file or revised job ids.

- In the folder *frictional wage dispersion*, run *main.do* to merge the two data sets.
- Run *measure\_error.do* to obtain the the data set read in by *estimation\_main.m* and create Table D1.
- Run *EE.do* to generate the data set read in by *jtj\_statistics.m* and *jtj\_smooth.m*.
- Run *FWD.do* to generate the data set read in by *FWD.m*.
- Run *life - cycle.do* to generate the data set read in by *life - cycle.m*.
- Run *experience.do* to obtain the reduced form estimator for experience.
- Run *depreciation.do* to obtain the reduced form estimator for depreciation.

## 4 Data (Matlab files)

- Run *estimation\_main.m* to obtain parameters of MA measurement error process and Table D2. The estimated process depends on the variance of the innovations to individual wage potential. In the folder "Model full", we include the calibrated processes for the baseline and alternative calibration as *par.mat* and *par\_alt.mat*, respectively. These are called in the simulation of the models.
- Run *jtj\_statistics.m* to obtain all statistics for job to job movements in the data and Tables 2, 7, B1, C1 and C2 and Figure C1. To replicate Tables C1, one need to change the job identifier in *main\_cepr.do*.
- Run *jtj\_smooth.m* to compute loss making transitions with 3 months smooth wages.
- Run *FWD.m* to compute the amount of residual wage dispersion in the data. Computes statistics for Table 3 and Figure 4.
- Run *life\_cycle.m* to compute the calibration targets for the initial wage dispersion and the increase over the life-cycle.
- Run *wage\_distribution.m* to create Figure 5.