Appendix to: Maruyama and Johar “Do Siblings Free-Ride in ‘Being There’ for Parents?”
Quantitative Economics

This ZIP file contains programs and auxiliary files needed for replication and sensitivity analysis.

The data used in the paper are not included in this file because the Health and Retirement Study (HRS) is administrated by the University of Michigan and is accessible only for registered users. However, all data files below can be downloaded from http://hrsonline.isr.umich.edu/ with user login.

The programs are all written in Stata or Fortran 90. In case of Fortran, an executable file needs to be built by an appropriate Fortran compiler from the source files. The source files have the extension .f90.

This appendix is organized in folders, each of which is dedicated to one task. The description of these tasks, the list of relevant files, and their relationships are described in this PDF file. For each task, all the input files need to be placed in the same folder together with the program file in order to execute.

Please note that the estimation and computation by the Fortran programs may generate results that are not identical to those reported in the paper because the computation depends on the computing environment of each user, especially when OpenMP commands are used. However, these differences should be negligibly small.

Please contact the Authors for inquiry.

Shiko Maruyama

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(A1) Getting children's education information from HRS data

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(A1-1) Program files:

childeducation.do

(A1-2) Input files:

H00D_MC.dct

H00PR_MC.dta

H04E_MC.dct

H10E_MC.dct

(A1-3) Output files:

childeduc00.dta

childeduc04.dta

childeduc10.dta

(A2) 1998 data construction (construction98.do)

This will generate the stata version of the .dct files and a child-level data set.

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(A2-1) Program files:

construction98.do

(A2-2) Input files:

H98PR_MC.dct

H98D_H.dct

H98D_MC.dct

H96D_MC.dct

H00D_MC.dct

HRSREGION.dta

h98f2b.dta

childeduc00.dta <-- from (A1)

(A2-3) Output files:

childdata_population98.dta

(A3) 2004 data construction (construction04.do)

This will generate the stata version of the .dct files and a child-level data set.

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(A3-1) Program files:

construction04.do

(A3-2) Input files:

H04PR_MC.dct

H04E_H.dct

H04E_MC.dct

HRSREGION.dta

h04f1a.dta

childeduc04.dta <-- from (A1)

(A3-3) Output files:

childdata_population04.dta.

(A4) 2010 data construction (construction10.do)

This will generate the stata version of the .dct files and a child-level data set.

==========

(A4-1) Program files:

construction10.do

(A4-2) Input files:

H10PR_MC.dct

H10G_HP.dct

H10E_H.dct

H10E_MC.dct

HRSREGION.dta

h08f1b.dta

h10e1a.dta

H10A_R.dct

H10B_R.dct

H10C_R.dct

H10F_R.dct

H10J_R.dct

H10G_R.dct

H10PR_R.dct

H10H_H.dct

childeduc10.dta <-- from (A1)

(A4-3) Output files:

childdata_population10.dta

(A5) Constructing pooled child-level data

==========

(A5-1) Program files:

Pooling.do

(A5-2) Input files:

childdata_population98.dta <-- from (A2)

childdata_population04.dta <-- from (A3)

childdata_population10.dta <-- from (A4)

(A5-3) Output files:

childdata_pooled.dta

Pooling.log

(A6) Constructing pooled child-level data (used below) and produce summary statistics (used in Table 2)

==========

(A6-1) Program files:

PoolData.do

(A6-2) Input files:

childdata_pooled.dta <-- from (A5)

(A6-3) Output files:

data_long.raw

data_short.raw

PoolData.log

(A7) Constructing pooled child-level data in reverse order (used in B7)

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(A7-1) Program files:

PoolDataReverse.do

(A7-2) Input files:

childdata_pooled.dta <-- from (A5)

(A7-3) Output files:

data_longR.raw

data_shortR.raw

PoolDataReverse.log

(B1) Estimating Model [1] - Simple Probit

Results are used in Table 3

Output numbers are also used in Table 1

==========

(B1-1) Program files:

probit.f90

mod_matrix.f90

mod_minimization.f90

mod_probability.f90

(B1-2) Input files:

setting.prn

data.raw <-- rename data_short.raw from (A6)

(B1-3) Output files:

timestamp.prn ... log file

(B2) Estimating Model [2] - Constant rho, no alpha

Results are used in Table 3

==========

(B2-1) Program files:

fulllinear.f90

mod_ghk.f90

mod_matrix.f90 (same as B1)

mod_minimization.f90 (same as B1)

mod_probability.f90 (same as B1)

(B2-2) Input files:

setting.prn

data.raw <-- rename data_short.raw from (A6)

(B2-3) Output files:

timestamp.prn ... log file

param1.out

param2.out

(B3) Estimating Model [3] - Constant alpha and rho

Results are used in Table 3

==========

(B3-1) Program files:

Same as (B2)

(B3-2) Input files:

setting.prn

data.raw <-- rename data_short.raw from (A6)

(B3-3) Output files:

timestamp.prn ... log file

param1.out

param2.out

(B4) Estimating Model [4] - Full model

Results are used in Table 3

==========

(B4-1) Program files:

full.f90

mod_ghk.f90 (same as B2)

mod_matrix.f90 (same as B1)

mod_minimization.f90 (same as B1)

mod_probability.f90 (same as B1)

(B4-2) Input files:

setting.prn

data.raw <-- rename data_long.raw from (A6)

(B4-3) Output files:

timestamp.prn ... log file

param1.out

param2.out

(B5) Estimating Model - Joint Utility Maximization

Results are used in Table 9

==========

(B5-1) Program files:

joint.f90

mod_matrix.f90 (same as B1)

mod_minimization.f90 (same as B1)

mod_probability.f90 (same as B1)

(B5-2) Input files:

setting.prn

data.raw <-- rename data_long.raw from (A6)

(B5-3) Output files:

timestamp.prn ... log file

param1.out

param2.out

(B6) Estimating Model - Private Information

Results are used in Table 9

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(B6-1) Program files:

incomplete.f90

mod_ghkprivinfo.f90

mod_matrix.f90 (same as B1)

mod_minimization.f90 (same as B1)

mod_probability.f90 (same as B1)

(B6-2) Input files:

setting.prn

data.raw <-- rename data_long.raw from (A6)

(B6-3) Output files:

timestamp.prn ... log file

param1.out

param2.out

(B7) Estimating Model - Reverse Order Sequential

- Results are used in Table 9

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(B7-1) Program files:

Same as (B4)

(B7-2) Input files:

setting.prn

data.raw <-- rename data_longR.raw from (A7)

(B7-3) Output files:

timestamp.prn ... log file

param1.out

param2.out

(C1) Counterfactual Simulation 1

Results are used in Tables 5 and 6

==========

(C1-1) Program files:

cfact_1.f90

mod_ghk.f90 (same as B2)

mod_matrix.f90 (same as B1)

mod_probability.f90 (same as B1)

nesolve.f90

(C1-2) Input files:

setting.prn

param1.out <-- from (B4)

param2.out <-- from (B4)

data.raw <-- rename data_long.raw from (A6)

(C1-3) Output files:

timestamp.prn ... log file

(C2) Counterfactual Simulation 2

Results are used in Tables 4, 7, 8

==========

(C2-1) Program files:

cfact_2.f90

mod_ghk.f90 (same as B2)

mod_matrix.f90 (same as B1)

mod_probability.f90 (same as B1)

nesolve.f90

(C2-2) Input files:

setting.prn

param1.out <-- from (B4)

param2.out <-- from (B4)

data.raw <-- rename data_long.raw from (A6)

(C2-3) Output files:

timestamp.prn ... log file