Readme File: Codes for "Life-Cycle and Intergenerational Effects of Child Care Reforms"

1. Data Access

The data employed in the analysis are drawn from Norwegian administrative registers. Researchers can gain access to the data by submitting a written application to the data owner (see below). The application should include a detailed research proposal describing the goals and methods of the project, a detailed list of variables, the selection criteria to be used, and how the research will be funded. Once received, applications must be certified by The Norwegian Data Inspectorate in order to ensure that data are processed in a manner that protects the personal integrity of individuals surveyed. Conditional on this approval, Statistics Norway will then determine which data one may obtain in accordance with the research plan. Individuals must provide a list of all individuals who will have access to the data along with description of a secure way in which the data will be stored for the period of the research project. Inquiries about access to data from Statistics Norway should be addressed to:

Labour Market Section Statistics Norway PB 8131 Dep, 0033 Oslo Norway

2. List of subdirectory structure in the zip file

1.1) .\othercode\
1.2) .\fortrancode\
1.3) .\fortrancode\m1_h\ (high-education women)
1.4) .\fortrancode\m1_l\ (low-education women)

3. Fortran codes that perform model estimation and simulation

Folder (1.2) contains fortran codes for estimation and simulation.

There are three files in fortran 90 format:

- Dynmodel1.f90: The main program that executes the subroutines.
- Lib1.f90: A short module that stores generic variables.
- Lib2.f90: All the modules and subroutines are stored here. The modules store the definitions of data, variables, parameters and estimation/simulation directives. The subroutines contain the model for estimation and simulation.

The source codes have external dependencies on Intel MKL libraries and IMSL 6.0 libraries. The Visual Studio (VS) project file "dynmodel2b.vfproj" contains all the compiling and linking options for debug and release under Intel Fortran Compiler 11 (they can be viewed under "project properties").

To use the codes, open the project file in Visual Studio. An interface file (mkl_vsl.f90) needs to be added to the list of source files, along with dynmodel1.f90, lib1.f90, and lib2.f90. This

file can be found in one of the directories where MKL is installed. Then, select “build the project”.

Folder (1.2) also contains a small text file called “path.txt”, which is read by the program. This file contains the target path (by default, folder (1.3) or (1.4)) where the ASCII data sets are located.

To estimate or simulate the desired model, the program reads the data files, an instruction file called “instruction.txt”, and initial values of the parameters in “parainit.txt”. The location of these files is folder (1.3) and (1.4) by default. The instruction file contains information on how the user wants the model to be estimated/simulated. After estimation, the program creates a number of output files in the same directory as where the data files are stored. The instruction file controls whether the program will output detailed simulated outcomes to a text file.

For further details about simulations, see readme.txt in folder (1.3) and (1.4).

4. Other codes

Folder (1.1) contains codes that generate other results in the paper:

- score 2016 short2.do: generates all test score regression results
- Sim_read new 1 2016.sas: reads simulation and output results
- score_sim all 2016.sas: simulate changes in test scores
- tax_rate.sas: simulates average tax rate by family size
- completed_fertility.sas: investigates completed fertility versus timing effects
- postdist 2016.do: plot posterior histograms using posteriors from simulation output