# README

This document contains information on how to replicate the tables and figures from the master's thesis "Employment and Retirement Decisions in a Couples Context: Evidence from raising the Danish Early Retirement Age" by Alexander Krikonis. This includes a list of all programs, the order to run the programs in, and information on how to access the data.

## 1. List of programs

The following programs must be run to construct the data sets used to generate the figures and tables.

Name	Format	Purpose
Main	SAS	Sets options and defines libnames.
Load data	SAS	Loads data concerning the monthly employment and members of the early retirement pension scheme from internal sources in the Danish Ministry of Finance.
Covariates	SAS	Constructs covariates.
Transfers	SAS	Computes if people receive transfers on a monthly level, and if so, which transfer they receive.
Merge data	SAS	Merges covariates, employment data, and information if people are members of the early retirement pension scheme. Constructs information on a monthly level of both the focal partners and the spouses. Constructs the focal partners' distance to each of the four cutoffs.
Data to estimation, ERA	SAS	Constructs the focal partners' distance to the pooled cutoff and the focal partners' monthly distance to the first month where they can claim early retirement benefits if being in the control group.
Data to estimation, NRA	SAS	Constructs the focal partners' distance to the pooled cutoff and the focal partners' monthly distance to the first month where they can claim national retirement benefits if being in the control group. Produces a file in the Stata-format (.dta).
Retirement, older couples	SAS	Constructs the difference in the year of retirement and the couples' age difference. Produces a file in the Stata-format (.dta).
Adjust wages	SAS	Computes the monthly seasonally adjusted wages.

Netcontribution	SAS	Computes the spouses' monthly individual net contribution to the government budget.
Load data to estimation, ERA	Stata	Loads the data set, generates dummies, changes formats of variables, and generates polynomials. This data set is used to estimate the effects of raising the early retirement age.
Load data to estimation, two-year rule	Stata	Loads the data set, generates dummies, changes formats of variables, and generates polynomials. This data set is used to estimate the effects of raising the age to be eligible to apply the two-year rule.
Load data to estimation, NRA	Stata	Loads the data set, generates dummies, changes formats of variables, and generates polynomials. This data set is used to estimate the effects of raising the national retirement age.
Load data to estimation, netcontribution	Stata	Loads the data set, generates dummies, changes formats of variables, and generates polynomials. This data set is used to estimate if the spouses' individual net contribution to the government budget is affected by the increase in the early retirement age.

The following programs must be run to construct the tables and figures in the thesis.

Name	Format	Purpose
Table 6.1	SAS	Generates the data to table 6.1
Table 6.2	Stata	Generates the data to table 6.2
Table 6.2	Stata	Generates the data to table 6.2
Table 7.1	Stata	Generates the data to table 7.1
Table 7.2	Stata	Generates the data to table 7.2
Table 7.3	Stata	Generates the data to table 7.3
Table 7.4	Stata	Generates the data to table 7.4
Table 7.5	Stata	Generates the data to table 7.5
Table 7.6	Stata	Generates the data to table 7.6
Table 8.1	Stata	Generates the data to table 8.1
Table 8.2	SAS	Generates the data to table 8.2
Table A.1	Stata	Generates the data to table A.1
Table A.2	Stata	Generates the data to table A.2
Table A.3	Stata	Generates the data to table A.3
Table A.4	Stata	Generates the data to table A.4

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Table A.5	Stata	Generates the data to table A.5
Table A.6	Stata	Generates the data to table A.6
Table A.7	Stata	Generates the data to table A.7
Table A.8	Stata	Generates the data to table A.8
Table A.9	Stata	Generates the data to table A.9
Table A.10	Stata	Generates the data to table A.10
Figure 4.1	Python	Generates the data to figure 4.1
Figure 7.1	Stata	Generates the data to figure 7.1
Figure 7.2	Stata	Generates the data to figure 7.2
Figure 7.3	Stata	Generates the data to figure 7.3
Figure 7.4	Stata	Generates the data to figure 7.4
Figure 7.5	Stata	Generates the data to figure 7.5
Figure A.2	Python	Generates the data to figure A.2
Figure A.4	Stata	Generates the data to figure A.4
Figure A.5	Stata	Generates the data to figure A.5
Figure A.6	Stata	Generates the data to figure A.6

#### 2. How to replicate the tables and figures

A: Construct the data sets used to generate the tables and figures

Step 1: Create a project in SAS, and include the following programs: "Main", "Load data", "Covariates", "Transfers", "Merge data", "Data to estimation, ERA", "Data to estimation, NRA", "Retirement, older couples", "Adjust wages", and "Netcontribution".

Step 2: Run the programs in the following order: "Main"  $\rightarrow$  "Load data"  $\rightarrow$  "Covariates"  $\rightarrow$  "Transfers"  $\rightarrow$  "Merge data"  $\rightarrow$  "Data to estimation, ERA"  $\rightarrow$  "Data to estimation, NRA"  $\rightarrow$  "Retirement, older couples"  $\rightarrow$  "Adjust wages"  $\rightarrow$  "Netcontribution".

Step 3: Run the following programs in Stata to construct the data sets used to generate the tables and figures: "Load data to estimation, ERA", "Load data to estimation, two-year rule", "Load data to estimation, NRA", and "Load data to estimation, NRA". The programs do not have to be run in a specific order.

### B: Construct the tables and figures

Step 1: Run the program with the name of the table or figure to be constructed.

Step 2: If constructing a table with estimates, a file in Excel-format is generated in each of the six months of interest. To construct the final table, consider the upper estimate in each of the six different Excel-files.

#### 3. How to access the data

One must have access to Danish administrative data to replicate the results. It also implies that it is impossible to hand over the data sets unless having access to the server containing the administrative data. Statistics Denmark administrates the server, and access to the administrative data is only issued through this institution. However, approval can only be requested through accredited institutions. Questions concerning the data are gladly answered by the author, whose contact information is reported in the note on the thesis' front page.