

Training Course on EU-LFS, September 17<sup>th</sup>-19<sup>th</sup> 2014, Ljubljana  
Practical Computing Session II

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*Exercise 2: Analyses on the household level and on the couple level*

- a) Presence, number and age of children in the household
  - b) Employment patterns of couples, depending on the age of the youngest child in the household
  - c) Determinants of the employment patterns of couples
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The exercise consists of three parts. They build on each other and increase in complexity. After each part, you should save the dataset.

**Before you start**

Exclude Switzerland (`country=4`), since household information is not available.

Select the population living in private households (`hhpriv=1`).

**Exercise 2a: Presence, number and age of children in the household**

The LFS data contains not only information on the person level, but also on the household level. One row in the dataset represents one person, and all persons who belong to the same household can be identified by the shared household number (`qhhnum`).

*Task*

Calculate the proportion of households in each country

- by number of children (0, 1, 2, >2)
- by age of the youngest child (<3, 3-5, 6-17, no child <18 would be useful, but due to anonymisation of age not possible – use <5, 5-9, 10-19, no child <20 instead)

Consider a person as a child if

- the person is less than 15 years old
- the person is between 15 and 19 years old, lives with at least one parent in the household (`hhfath`, `hhmoth`) and is economically inactive (`ilostat`)

When calculating the proportion of households, you have to ensure that each household is counted only once. This can be done by selecting the reference person of the household (`hhlink`).

*Required variables*

- `age`, `hhfath`, `hhmoth` and `ilostat` to define children
- `qhhnum` to identify the household
- `hhlink` to select the reference person in the household
- `country` to differentiate by country

## **Exercise 2b: Employment patterns of couples, depending on the age of the youngest child in the household**

Beyond the person and the household level, one can conduct analyses on the couple level as well. For each person information about the presence of a partner in the household is available. Where appropriate, a partner identifier (`hhspou`) is available, which corresponds to the partner's ID (`hhseqnum`).

### *Task*

Calculate the prevalence of the different employment patterns of couples (where the woman is aged 25 to 54), depending on the age of the youngest child (<5, 5-9, 10-19, no child <20) in the household.

To classify the employment patterns of couples, you have to combine the information of the employment status of both partners in one row of the dataset. This can be done by selecting the partnered women (`hhspou>0`) and saving them in a separate file. This separate file has to be merged with the original file by `hhseqnum` – since the number of the partner the woman has given (`hhspou`) is equivalent to the number in the household the corresponding male has (`hhseqnum`).

Take the level of education (`hatele1d`) of both partners along, as you will need it for exercise 2c.

The following main employment patterns of couples should be distinguished (via `ilostat` and `ftpt`):

- traditional breadwinner model: man full-time employed, woman inactive
- modified breadwinner model: man full-time employed, woman part-time employed
- egalitarian model: both full-time employed
- other

### *Required variables*

- `sex`, `hhspou` and `hhseqnum` to merge the information of both partners
- `qhhnum` to identify the household
- `ilostat` and `ftpt` to classify the employment patterns
- `country` to differentiate by country
- `age` to limit the analysis to the relevant range of age

## **Exercise 2c: Examine the relationship between employment patterns of couples and socio-demographic characteristics**

### *Task*

Examine the differences in traditional, modified, egalitarian and other employment patterns of couples (where the woman is aged 25 to 54) using multinomial logistic regression. The analysis should compare modified to traditional, egalitarian to traditional, and other to traditional couples. The independent variables of interest are level of education (of both partners) and age of the youngest child in the household.

Use as dependent variable:

- employment patterns of couples, as generated in exercise 2b ( with 4 categories, use the traditional breadwinner model as reference category)

Use as independent variables:

- level of education of both partners, `hatele1d` (3 levels, with “high” as reference category)
- age of the youngest child in the household, as generated in exercise 2a ( with “no child <20” as reference category)

Calculate a multinomial logistic regression model (NOMREG in SPSS). Control for country, with UK as reference category.