

# DIW Berlin

German Institute  
for Economic Research

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## Introduction to the ECHP – Day 2

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**EPUNet**  
EuroPanel Users Network  
Connecting ECHP Users

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## Linking Personal File

- How do we link the personal file to other UDB files in terms of the identifiers or ID numbers ?
- To add household-related information to a particular individual, you match the household file to the personal file using wave, country and hid.
- Variables used for matching personal file: →

## Linking Personal File

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Register		Personal		Household
Wave = $i$		Wave = $i$		Wave = $i$
Country	↔	Country	↔	Country
HID		HID	↔	HID
PID	↔	PID		PID

---

## Identifiers within Files

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<b>Country File</b>	<b>Household File</b>
Country	Country
	HID
	PID
<b>Personal/Register File</b>	<b>Relationship File</b>
Country	Country
HID	HID
PID	PID1
	Relation
	PID2

## Cross-sectional matching

- Matching Household to Individual Information
  - Matching Households to Individuals
  - Matching Individuals to Households
  - Matching Individuals to Individuals

## Cross-sectional matching

- Importance of sorting (country, hid, pid)
- Characteristics: Household size, Household total income, Type of Household, Type of accommodation

## Matching Household Data to Individuals

Personal/Register File	Household File
Country	Country
HID	HID
PID	PID
	Household variables

## Matching Household Data to Individuals

Personal/Register File		Household File
Country	↔	Country
HID	↔	HID
PID		PID
Household variables		Household variables



## Example: income analysis

- Concept: equivalised income
- Refers to the overall need within a family or household
- Standard techniques to adjust family income  
→ accounts for different size of household and characteristics of family members
- Equivalence scales capture 'economies of scale'

## Equivalence scales

- Scales represent the consumption needs of any household relative to the needs of a reference category (usually a single individual).
- Basic unit is household income because members of a household pool their income.
- Pooling of income  $\rightarrow$  the consumption possibilities of each individual may not reflect individual income.

## Equivalence scales II

- Household income is not simply divided by the household size:
  - Economies of scale are present in household consumption (because of public goods in the household; ex.: two persons do not need two kitchens)
  - Different preferences of household members (ex.: children differ from adults).

## Equivalence scales III

- Equivalence scales answer the following question:
  - How much should the income of a household consisting of several persons be in order to obtain the same (material) standard of living as a single individual?

## Equivalence scales IV

- Equivalised income = income/adult equivalent
- (Total income) / (equivalization factor)
- Widely used: OECD and modified OECD equivalence scales

	OECD original	OECD modified
first adult	1	1
other adults ( $\geq 14$ )	0.7	0.5
child ( $< 14$ )	0.5	0.3

## Syntax example

```
get file = 'g:\daten\trn_w1r.sav'.
sort cases by country hid pid.
match files file=*
    /tables = 'g:\daten\trn_w1h.sav'
    /by country hid
    /keep = country pid hid hi200 hd005
    hg015 rg002.
missing values hi200 hd005 (-8,-9).
compute w1mninc=hi200/hd005.
var lab w1mninc 'Equiv. monthly hh income'.
missing values w2mninc (lo thru -0.1).
```

## Syntax 1 continued

```
comp w2reg = -9.
do if country = 51.
+ recode hg015 ('DE1', 'DE2', 'DE3',
  'DE5', 'DE6', 'DE7', 'DE9', 'DEA', 'DEF',
  'DEX'=1) ('DE4', 'DE8', 'DED',
  'DEE', 'DEG' =2) into w2reg.
end if.
if country=8 w2reg=3.
if country=55 w2reg=4.
if country=57 w2reg=5.
exe.
```

## Syntax 1 continued

```
*      Descriptive income statistics.
sort   cases by country.
split  file by w2reg.
weight by rg002.
frequencies variables = w2mninc
        /format = notable
        /ntiles = 5
        /statistics= med mean.
weight off.
split  file off
```



# Results

## Statistics

w2: monthly eq. household income/capita

Germany-West	N	valid	13687
		missing	106
	Mean		2329,6210
	Median		2077,3664
Germany-East	N	valid	2872
		missing	17
	Mean		1840,4184
	Median		1750,0000
Ireland	N	valid	12558
		missing	19
	Mean		582,2055
	Median		446,7167
Luxembourg	N	valid	8191
		missing	1
	Mean		71372,9976
	Median		63638,0000
UK	N	valid	12494
		missing	14
	Mean		809,6231
	Median		664,6667

## Matching exercise 1

- Match 'kind of accommodation' to each individual and run frequencies of accommodation types for all, wave 2
- Unit of analysis is individual

## Syntax: Exercise 1

```
get      file = 'a_w2r.sav'  
        /keep country hid pid rg002.  
sort    cases by country hid pid.  
match   files file=*  
        /table = 'a_w2h.sav'  
        /keep = country hid pid rg002 ha005  
        /by country hid.
```

exe.

```
weight by rg002.  
cross   ha005 by country  
        /cells = col count.  
weight off.
```

## Results

**Kind of Accommodation \* COUNTRY CODE**

		COUNTRY CODE			
		Ireland	Germany	Luxembourg	UK
Kind of	detached single-family house	45,0	25,0	43,4	23,7
Accommodation	semi-det or terr single-family house	51,0	14,4	33,6	61,8
	apartment, building <10 dwellings	2,0	25,2	22,8	12,5
	apartment, building 10+ dwellings	0,9	12,0	0,0	0,7
	other accomodation	1,2	23,5	0,2	1,2
	Total	12420	16420	8122	11959

## Matching: Exercise 2

- Match main source of household income in the year prior to the survey to each individual interviewed and run frequencies for all countries, wave 3
- Unit of analysis is individual

## Syntax: Exercise 2

```
get      file = 'trn_w3p.sav'  
        /keep=country hid pid pg002.  
sort     cases by country hid pid.  
match   files file=*  
        /table= 'trn_w3h.sav'  
        /by country hid  
        /keep= country hid pid pg002 hi001.  
weight  by pg002.  
cross   hi001 by country  
        /cells=count row.  
weight  off.
```

## Results

### Main source of income

	Country Code			
	Ireland	Germany	Luxembourg	UK
Wages and salaries	21,1	35,8	20,0	23,1
Self-employment or farming	39,6	21,6	14,0	24,8
Pensions	17,0	37,0	21,0	25,1
Unemployment/redundancy benefits	59,5	36,0	1,7	2,8
Other social benefits or grants	26,4	17,5	15,0	41,1
Private Income	10,5	50,3	10,2	28,9
Total	8516	12528	6784	8810

## Matching Individuals to Individuals

- Matching spouses
- Importance of sorting (country, hid, pid)
- Unit of analysis is couple



## Matching exercise 4

- Matching Spouses
- Match partners and respective main activity status, pe001
- run frequencies for all, wave 2
- Unit of analysis is Couple

## Syntax exercise 4

```
get      file = !path1+'trn_w2rel.sav'.
sort     cases by country hid pid1.
select  if relation eq 1.
match   files file=*
        /table = !path1+'trn_w2p.sav'
        /rename (pid rd005 = pid1 rd005_1)
        /keep=country hid pid1 rd005_1 pid2
        /by country hid pid1.
```

## Syntax exercise 4 continued

```
sort cases by country hid pid2.  
match files /file=*  
    /table= !path1+'trn_w2p.sav'  
    /rename (pid pi211m = pid2 pi211m_2 )  
    /keep=country hid pid1 rd005_1 pid2 rd005_2  
    /by country hid pid2.  
exe.
```

## Syntax exercise 4 continued

```
miss    val rd005_1 rd005_2 (-8,-9).
sort    cases by country hid.
split   file by country.
fre     rd005_1 rd005_2
        /format=notable
        /statistics= mean med.
split   file off.
```

## Syntax exercise 4 continued

### WORKING 15+ HOURS

COUNTRY CODE			Working 15+ Hours		Working 15+ Hours	
			Frequency	Valid Percent.	Frequency	Valid Percent.
Ireland	Gültig	Yes	1739	67,3	906	35,1
		No	844	32,7	1678	64,9
		Gesamt	2583	100,0	2584	100,0
Germany- National source	Gültig	Yes	3021	65,6	2304	50,1
		No	1581	34,40	2297	49,9
		Gesamt	4602	100,0	4601	100,0
Luxembourg- National source	Gültig	Yes	1303	65,5	462	23,2
		No	687	34,5	1530	76,8
		Gesamt	1990	100,0	1992	100,0
UK- National source	Gültig	Yes	2006	64,1	1839	58,8
		No	1123	35,9	1289	41,2
		Gesamt	3129	100,0	3128	100,0