



Understanding Society


THE UK HOUSEHOLD LONGITUDINAL STUDY

Introduction to Understanding Society:

The UK Household Longitudinal Study (UKHLS)

Institute for Social and Economic Research
University of Essex

An initiative by the Economic and Social Research Council, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by the National Centre for Social Research.



Example 4: Distributing household level information to respondents

- What characteristics are associated with the probability that someone is poor?
- Description:
 - Step 1: Calculate equivalised household income
 - Step 2: Compute the poverty line
 - Step 3: Compute poverty status
 - Step 4: household level information is linked to individual level observations. The resulting file is at the individual level, with household level variables.

Creating the poverty line and poverty status

Household level data file				
a_hidp	a_fihhmnnnet1_dv	a_ieqmoecd_dv	a_ehhnetinc1	a_pov
1	1000	1.5	667	1
2	3450	1.5	2300	0

- Compute the poverty line: 669

Creating the poverty line and poverty status

- In this example we want to see whether the household is above or below the poverty line
- So, we will create a 0-1 indicator variable using the household level file, say **a_pov**
- To create this indicator we need to compute the poverty line, say **a_povline**, which is defined as 60% of the median net equivalised household income
- To create the poverty line we need to compute the net equivalised household income, say **a_ehhnetinc1** using net household income, **a_fihhmnet1_dv** and the equivalence scale, **a_ieqmoecd_dv**

$$\mathbf{a_ehhnetinc1} = \mathbf{a_fihhmnet1_dv} / \mathbf{a_ieqmoecd_dv}$$

Creating the poverty line

- Create the equivalised net household income
- Create the poverty line using a weighted median of the equivalised net household income
- Rather than writing the poverty line manually into the code, we will store this value and then use it in the next calculation. This means the calculation will have greater accuracy, and also mean we can use the code again for other waves of data.
- There will be more on using weights later in Ex6, for now just follow the instructions in the worksheet.

Creating poverty status using logical statements

- To create poverty status 0-1 indicator variable using a logical statement, testing if the `a_ehhnetinc1` is above or below the poverty line in each observation.

We need to be careful that missing values in income (e.g. the person is unemployed) are treated properly – this varies by software package and is described in the worksheets.

Distribution

Individual data file			
a_hidp	a_pno	pidp	a_sex_dv
1	1	001	1
1	2	002	2
2	1	003	1
2	2	004	1

Household data file		
a_hidp	a_ehhnetinc1	a_pov
1	667	1
2	2300	0

Merged individual-level data file					
a_hidp	a_pno	pidp	a_sex_dv	a_ehhnetinc1	a_pov
1	1	001	1	667	1
1	2	002	2	667	1
2	1	003	1	2300	0
2	2	004	1	2300	0

Merging two different level files

- What is the linking variable(s): **a_hidp**
- Check the level of each dataset, that is, whether this variable uniquely defines each row
- You will find that a_hidp uniquely determines each row of a_hhresp but not a_indall. So, this will be a one-to-many OR many-to-one merge depending on the order of the files – this is important to specify in some packages

Using the data



We can use this data file to

- estimate the proportion of people living in poor households
- look at the proportion of people living in poor households by age group and household type