

Block 2: Analysing one variable

Interval and ratio variables

2.2.1.4 [BSA86] Exercise - Frequencies for interval variables [4 December 2010]

Previous session: 2.2.1.3 [BSA86] Extending your data dictionary

Exemplar: [British Social Attitudes](#) (1986 survey)

**Task:** What is the distribution of the number of people in a household, including the respondent?  
What is the average number of persons per household?

What is the age distribution of the sample and what is its average age? What shape does the distribution have? Where are the cutting points for the oldest 10% and 25% and the youngest 10% and 25%?

File: **mybsa86\_4.sav**

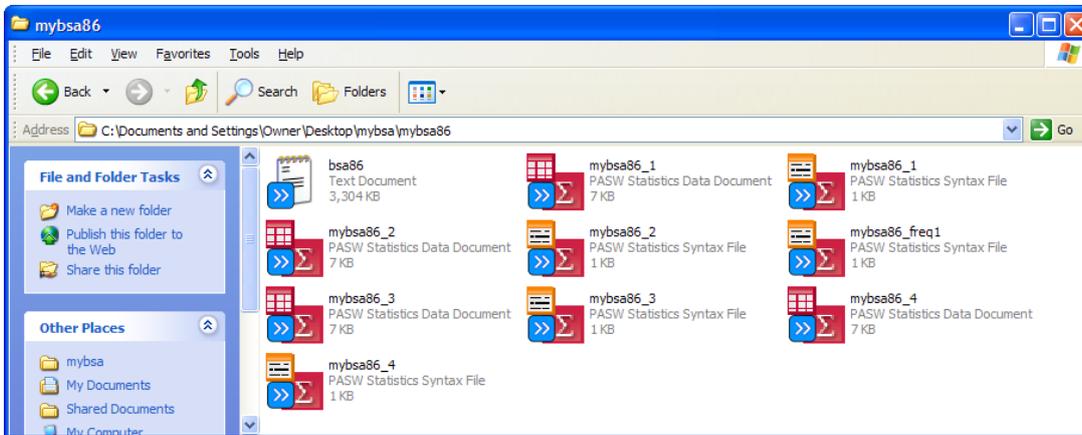
SPSS commands<sup>1</sup> used:

TITLE

FREQUENCIES

Exercise for you to do by yourself:

Go to your **mybsa86** folder



[If you don't already have folder **mybsa86** or file **mybsa86\_4.sav**, go back to the [Block 2 menu](#) and do exercises 2.1.2.3 to 2.1.2.7, the housekeeping exercise 2.1.2.8 and the previous exercises in this section 2.2.1.2 [BSA86] Exercise - Reading in data for interval variables and 2.2.1.3 [BSA86] Extending your data dictionary]

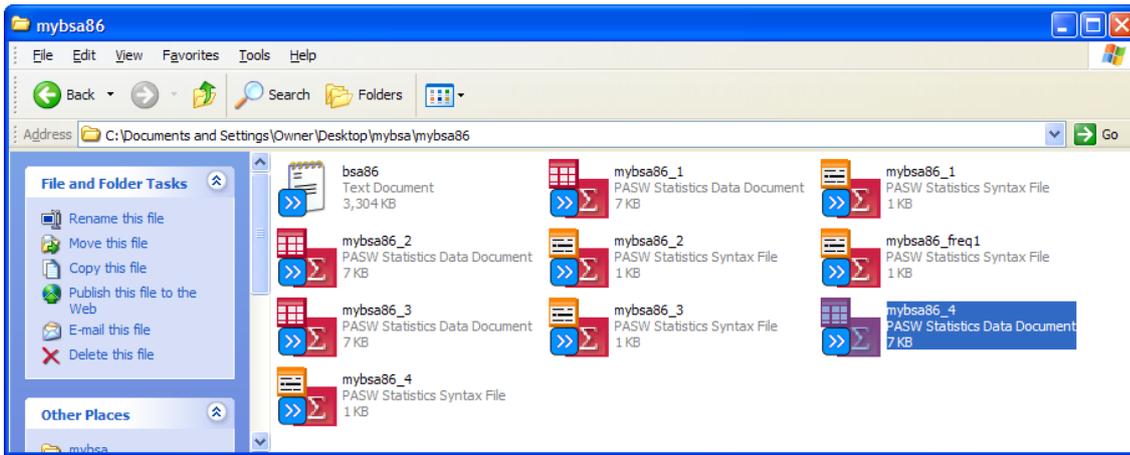
<sup>1</sup> General formats:

TITLE                    '<Any text>' .

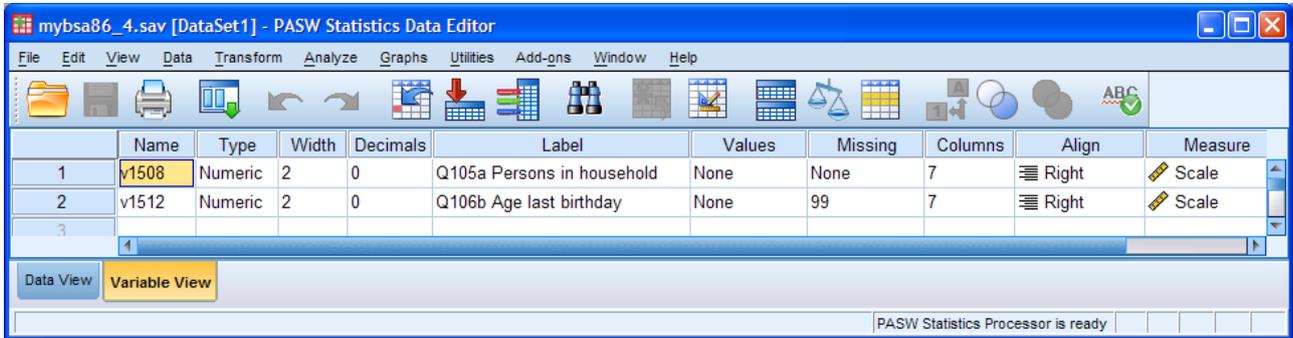
FREQUENCIES <varlist>  
          /STATISTICS <statistics list>  
          / <graphics options>  
          / <other options>

[eg MODE, MEAN, ALL]  
[eg BARCHART, HISTOGRAM]  
[eg PERCENTILES, FORMAT NOTABLE etc]

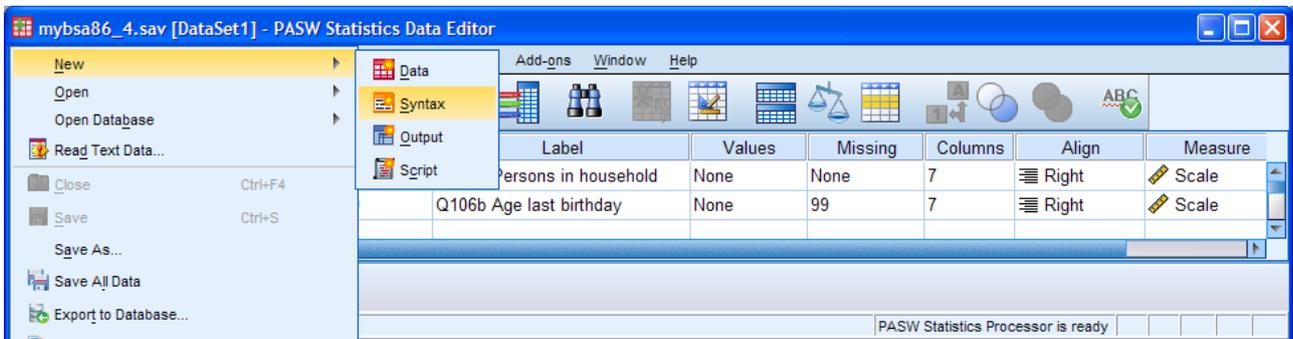
Double click on **mybsa86\_4.sav**:



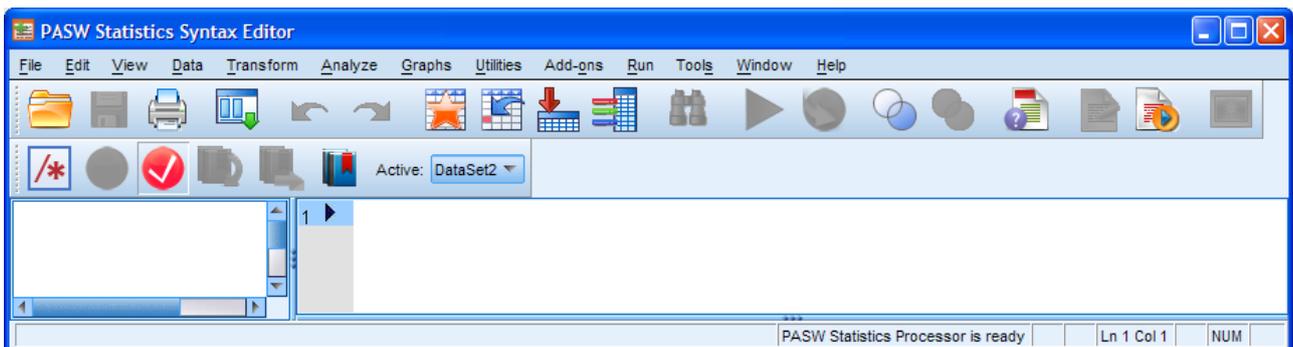
Double-click on **mybsa86\_4.sav**.



Click on **File** > **New** > **Syntax**



... to open a new syntax editor:



Give your job a **TITLE**

Write two separate **FREQUENCIES** commands to tabulate:

- 1: Number of persons in household, plus **BARChart**, **MEAN**, **MEDIAN** and **MODE**
- 2: Age of respondent together with a **HISTOGRAM**, all available **STATISTICS**, and the appropriate **PERCENTILES**.

**Try to do this yourself, one frequency count at a time (without peeping at the crib)!**

**title** ' \_\_\_\_\_ ' .

**frequencies** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ .

**frequencies** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ .

When you have finished editing, run the commands one at a time. Make sure the cursor is inside the relevant command [*the command in the left pane will highlight in light yellow*] and click on the green ► (or press **[CTRL]+R** or click on **Run > Current** )

- 1: What is the average number of persons per household?  
Which is the best measure, the mean, the median or the mode? Why?
- 2: What is the average age of the sample?  
Is this an accurate measure? Why (not)?  
Which is the better measure, the mean or the median? Why?

### **End of session**

If you get really stuck have a look at:

**Next session:** **2.2.1.5 Specimen answer for interval scale frequencies**

. . . and work through it yourself, several times if necessary, until you are confident: then have a shot at the homework exercise.

**Homework:** **2.2.1.6 [bsa89] Homework Exercise**

[\[Back to Block 2 menu\]](#)