

## 2.2.1.6 Homework exercises

[4 December 2010]

Exemplar: [British Social Attitudes](#) (1989 survey<sup>1</sup>)

## Research questions:

1. What is the distribution of the number of people in a household, including the respondent? What is the average number of persons per household?
2. 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%?
3. How many men are there, and how many women?

[Some variables, such as gender, have only two categories and are known as **dichotomous** (from the Greek for "cut in half"). As regards level of measurement, these can be treated as categorical, ordinal or interval. We haven't done one yet so I've put it in here.]

**Exercise 1:** External data file [BSA89.txt](#) has 23 records per case. Write a set of SPSS commands to read in:

number of persons in household	(Q900b; record 14, columns 9-10)
sex of respondent	(Q901a; record 14, column 11:)
age of respondent	(Q901b; record 14, columns 12-13).

According to the Technical Report (Brook, Taylor and Prior, 1990) missing values have been coded as follows:

Household Size	98 Don't Know	99 No answer
Sex	None	
Age	98 Don't Know	99 No answer

Use the **positional** convention for **variable names**, declare **missing values** and provide **variable labels** and **value labels** as appropriate.

Save the data editor as **mybsa89\_2.sav** and the syntax editor as **mybsa89\_2.sps**

**Exercise 2:** Use **FREQUENCIES** to obtain:

sex	frequency count only
household size	frequency count, barchart, mean, median and mode
age	histogram, mean, median, quartiles, lowest and highest deciles: <b>suppress the frequency count!</b>

[The maximum number of persons in a household is 10. The youngest respondent is 18 and the oldest 97.]

<sup>1</sup> See <http://www.data-archive.ac.uk/findingData/snDescription.asp?sn=2723> for details and for access requirements.

Here is a facsimile of page 44 of the interviewer questionnaire for the 1989 wave:

- 44 -

	Col./ Code	Skip to																																																																										
900a) Can I just check your own marital status? At present are you ... <b>READ OUT</b> ...	1408																																																																											
... married,	1																																																																											
living as married,	2																																																																											
separated or divorced,	3																																																																											
widowed,	4																																																																											
or - not married?	5																																																																											
b) And a few questions about you and your household. <u>Including yourself</u> , how many people live here regularly as members of this household? <b>CHECK INTERVIEWER MANUAL FOR DEFINITION OF HOUSEHOLD IF NECESSARY.</b>  WRITE IN: <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/>	1409-10																																																																											
901. Now I'd like to ask for a few details about each person in your household. Starting with yourself, what was your <u>age</u> last birthday? <b>WORK DOWN COLUMNS OF GRID FOR EACH HOUSEHOLD MEMBER.</b>																																																																												
a) Sex:	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 10%;">Resp- ondent</th> <th style="width: 10%;">2</th> <th style="width: 10%;">3</th> <th style="width: 10%;">4</th> <th style="width: 10%;">5</th> <th style="width: 10%;">6</th> <th style="width: 10%;">7</th> <th style="width: 10%;">8</th> <th style="width: 10%;">9</th> <th style="width: 10%;">10</th> </tr> </thead> <tbody> <tr> <td>11</td> <td>11</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> <td>35</td> <td>40</td> <td>45</td> <td>50</td> <td>55</td> </tr> <tr> <td>Male</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Female</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td></td> <td>12-13</td> <td>16-17</td> <td>21-22</td> <td>26-27</td> <td>31-32</td> <td>36-37</td> <td>41-42</td> <td>46-47</td> <td>51-52</td> <td>56-57</td> </tr> </tbody> </table>											Resp- ondent	2	3	4	5	6	7	8	9	10	11	11	15	20	25	30	35	40	45	50	55	Male	1	1	1	1	1	1	1	1	1	1	Female	2	2	2	2	2	2	2	2	2	2		12-13	16-17	21-22	26-27	31-32	36-37	41-42	46-47	51-52	56-57											
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	12-13	16-17	21-22	26-27	31-32	36-37	41-42	46-47	51-52	56-57																																																																		
b) Age last birthday:																																																																												
c) Relationship to respondent:	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tbody> <tr> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td>18</td> <td>23</td> <td>28</td> <td>33</td> <td>38</td> <td>43</td> <td>48</td> <td>53</td> <td>58</td> </tr> <tr> <td>Spouse/partner</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Son/daughter</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Parent/parent-in law</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Other relative</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> <tr> <td>Not related</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> </tr> </tbody> </table>												18	23	28	33	38	43	48	53	58	Spouse/partner	1	1	1	1	1	1	1	1	1	1	Son/daughter	2	2	2	2	2	2	2	2	2	2	Parent/parent-in law	3	3	3	3	3	3	3	3	3	3	Other relative	4	4	4	4	4	4	4	4	4	4	Not related	5	5	5	5	5	5	5	5	5	5
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Other relative	4	4	4	4	4	4	4	4	4	4																																																																		
Not related	5	5	5	5	5	5	5	5	5	5																																																																		
d) HOUSEHOLD MEMBERS WITH LEGAL RES- PONSIBILITY FOR ACCOMMODATION (INC. JOINT AND SHARED)	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tbody> <tr> <td style="width: 10%;"></td> <td style="width: 10%;">14</td> <td>19</td> <td>24</td> <td>29</td> <td>34</td> <td>39</td> <td>44</td> <td>49</td> <td>54</td> <td>59</td> </tr> <tr> <td>Yes</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>No</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> </tr> </tbody> </table>											14	19	24	29	34	39	44	49	54	59	Yes	1	1	1	1	1	1	1	1	1	1	No	A	A	A	A	A	A	A	A	A	A																																	
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No	A	A	A	A	A	A	A	A	A	A																																																																		
* CHECK THAT NUMBER OF PEOPLE IN GRID EQUALS NUMBER GIVEN AT Q-900b)																																																																												

Try writing out your syntax below first:

**Exercise 1:**

ti \_\_\_\_\_ ' \_\_\_\_\_ ' .

d \_\_\_\_\_ l \_\_\_\_\_ f \_\_\_\_\_ ' \_\_\_\_\_ ' .

r \_\_\_\_\_

/ \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ .

m \_\_\_\_\_ v \_\_\_\_\_

v \_\_\_\_\_ v \_\_\_\_\_ ( \_\_\_\_\_ ) .

v \_\_\_\_\_ l \_\_\_\_\_

v \_\_\_\_\_ ' \_\_\_\_\_ ' .

/v \_\_\_\_\_ ' \_\_\_\_\_ ' .

/v \_\_\_\_\_ ' \_\_\_\_\_ ' .

v \_\_\_\_\_ l \_\_\_\_\_

v \_\_\_\_\_ ' \_\_\_\_\_ ' .

\_\_\_\_\_ ' \_\_\_\_\_ ' .

ex \_\_\_\_\_ .

**Exercise 2:**

You can write these out in full or use abbreviated syntax:

f \_\_\_\_\_ v \_\_\_\_\_ .

f \_\_\_\_\_ v \_\_\_\_\_

/b \_\_\_\_\_

/s \_\_\_\_\_ m \_\_\_\_\_ m \_\_\_\_\_ m \_\_\_\_\_ .

f \_\_\_\_\_ v \_\_\_\_\_

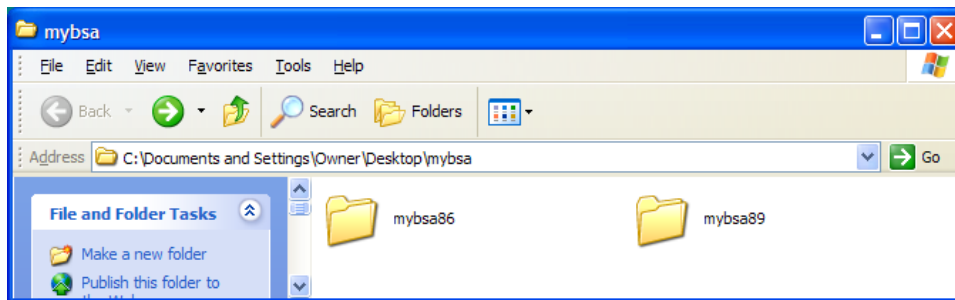
/f \_\_\_\_\_ n \_\_\_\_\_

/hi \_\_\_\_\_

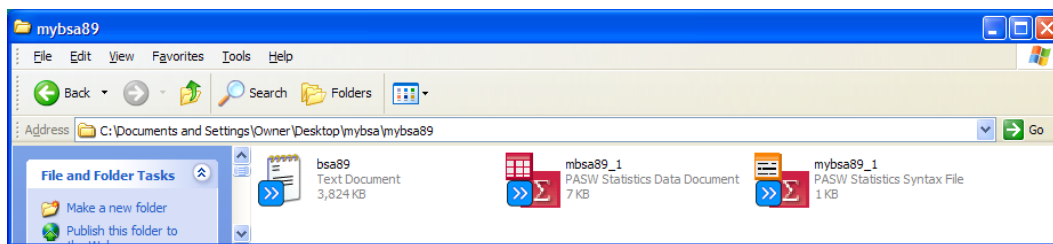
/st \_\_\_\_\_ m \_\_\_\_\_ m \_\_\_\_\_ ed

/p \_\_\_\_\_ .


Go to your folder **mybsa**:



... and open folder **mybsa89**:



*[If you don't have folders **mybsa** or **mybsa89**, go back to the [Block 2 menu](#), do the housekeeping in [2.1.2.8](#) and then exercises [2.1.2.9](#) and [2.1.2.10](#)]*

When you have finished **save** the Data Editor containing these three variables by clicking on the screen icon  at top left or by using:

**File** > **Save As**

... choose your own filename (eg **mybsa89\_2.sav**) and save it in folder **mybsa89**. You will need to access this file in later exercises. You should also save the syntax file (and possibly, but not always, the output file, as you can always run the job again).

My practice is always to have the same filename prefix for related files: thus **mybsa89\_2.sps** will be the syntax file which generates the saved file **mybsa89\_2.sav** and the output file **mybsa89\_2.spo**. I also keep all files related to the same survey in the same folder, eg **British Social Attitudes 1989** (or, as here, **mybsa89**). Once you have generated the initial **\*.sps** and **\*.sav** files, SPSS will normally stay within the same folder from which files are opened (by double-clicking) when generating subsequent files.

I tend to keep file-building syntax files separate from analysis files, so in this case I would write a separate syntax file for the frequencies and call it **freq2.sps** (to distinguish it from the earlier exercise on nominal and ordinal variables, which I would have called **freq1.sps**). Try to do these exercises yourself, but if you can't there's a specimen answer to help you.

**End of session**

**Next session:** [2.2.1.7 \[bsa89\] Specimen answer for homework exercise](#)

If you struggled to do the above exercise, go back and do it again, and again. Practice makes perfect and you need to be able to open, write, execute and save files almost as second nature, otherwise you will always have problems with the mechanics and never get to grips with the logic and theory underpinning the analyses you will be doing later.

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