Survey Analysis Workshop   **Copyright © 2013   John F Hall**

Detailed guide to SPSS tutorials   [Last updated 31 March 2013]

Block 1: From questionnaire to SPSS saved file

All tutorials and exercises on this page are now in **pdf** format and will display more or less immediately. All raw data, SPSS saved files and key syntax files can be found on data sets and documents, but you'll learn a lot more if you do all the exercises yourself instead of copying them.

1.1: The language of survey analysis

1.1.1 Pre-course questionnaire on interests and skills
     (Print up and complete, with up to 9 of your fellow students and/or colleagues)
1.1.2 Introduction to survey data
     (Essential reading)
1.1.3 Introduction to the use of computers in survey analysis
      (Highly recommended reading)

1.2: How do data relate to questionnaires?

1.2.1 Data transfer sheet
      (Print up, then write in the coded data from your completed questionnaire(s))
1.2.2 Preliminary data exercise
      (Type data from your transfer sheet into a *.txt file and save it)
1.2.3 First look at real data from a major survey
     (British Social Attitudes 1986)
1.2.4 Second look at data from a major survey
      (British Social Attitudes 1989)

These days, few users are familiar with ASCII files (the card-image format of many older survey data sets) but they are familiar with spreadsheets.. For the early part of the course I am therefore working on tutorials and exercises using Excel spreadsheets as an alternative to ASCII files for raw data.input to SPSS. from the pre-course questionnaire. The following (draft only) tutorials replicate exercises 1.2.1 and 1.2.2 above, and contain hyperlinks to sample Excel files on the data sets and documents page.

1.2.1b Data transfer sheet (Excel)
      (Print up, then write in the coded data from your completed questionnaire(s))
1.2.2b Preliminary (Excel) data transfer exercise
       (Type data from your transfer sheet into a *.xls file and save it)

1.3: Reading raw data into SPSS

1.3.1 Conventions for Naming Variables in SPSS
1.3.2 Cumulative data from pre-course questionnaire   [txt file containing raw data]
1.3.3.1 Preparing the ground
1.3.3.2 Introduction to SPSS syntax
1.3.3.3.First shot at writing SPSS syntax
1.3.3.4 First shot at running SPSS
1.3.3.5 Checking your data
1.3.3.6 SPSS for real - my first saved file [Tutorial]
1.3.3.7 SPSS for real - my first saved file   [Exercise]
1.3.3.8 Checking your data (again)
1.3.3.9 Some general advice on file building in SPSS

1.4: Completing your data dictionary

1.5: Utilities

There are various ways of using SPSS to check the content and structure of your data files and the properties of variables. Some are available in both the GUI and syntax, some in syntax only, some in GUI only. Some produce output, some don't. I'll be looking at GUI facilities such as: Utilities > Variables and Data > Define Variable Properties[1]

1.5.1 Tutorial: Checking SPSS (saved) data files (in preparation, March 2013)
1.5.2 Exercise: Checking SPSS (saved) data files (in preparation, March 2013)

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[1] Full explanation on: [Help](#) > [Core System](#) > [Data preparation](#) > [Defining Variable Properties](#)

Block 2:   Analysing one variable

[Page last updated 30 March 2013]

Files are in ***.pdf** format and are optimised for printing on European A4 sheet size (297 x 210 mm.) They are set in Arial 11-point font and are legible even when printed two pages to a sheet.

The general sequencing principle for exercises will be:

1: Work-through on pre-course questionnaire, plus possible exercise
2: Tutorials and work-through exercises using British Social Attitudes 1986
3: Homework exercises on British Social Attitudes 1989 (with specimen answers)
4: Lucky dip (European Social Survey, British Social Attitudes up to 2008, and NORC General Social Survey (USA) when I find time to generate some examples)

All raw data, SPSS saved files and key syntax files can be found on **data sets and documents**, but you'll learn a lot more if you do all the exercises yourself instead of slavishly copying them.

2.1: Nominal and ordinal variables

2.2: Interval scale variables

2.3: Data transformations
(Selecting **variables** for analysis, changing the **names** of variables, changing the **values** of variables. Creating **new variables** from existing ones. Selecting **cases** for analysis as a transition from analysing one variable to analysing two or more variables.)

2.1   Nominal and ordinal variables

[Page last updated 14 Jan 2012]

All links on this page are to pdf files

2.1 Nominal and ordinal variables (detailed contents
Summarises full details of the coverage and contents of each of the entries below.

The first set uses data from the precourse questionnaire, the second set from the 1986 British Social Attitudes survey and the third replicates exercises from the second set on the same variables in the 1989 British Social Attitudes survey.

1: Precourse questionnaire
myclass3.sav   SPSS saved file (N=169) for pre-course questionnaire on interests and skills
2.1.2.1 Tutorial - Frequencies for nominal and ordinal variables
2.1.2.2 Exercise - Frequencies for nominal and ordinal variables

2: 1986 British Social Attitudes survey
2.1.2.3 Questions and data for nominal and ordinal variables
2.1.2.4 Reading in data for nominal and ordinal variables
2.1.2.5 Extending your data dictionary
2.1.2.6 Checking your file contents
2.1.2.7 Frequencies for nominal and ordinal variables

2.1.2.8 Housekeeping [necessary to avoid clutter on your desktop]

3: 1989 British Social Attitudes survey
2.1.2.9 Homework exercise for nominal and ordinal variables
2.1.2.10 Specimen answer for homework exercise 1
2.1.2.11 Checking your file `contents
2.1.2.12 Specimen answer for homework exercise 2

Forward to next section **2.2: Interval scale variables**

Back to Block 2: Analysiing one variable
Back to Summary guide to SPSS tutorials

2.2: Interval scale variables

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All links on this page are to pdf files

2.2 Interval and ratio variables (detailed contents)
Summarises in detail the coverage and contents of the entries below.

The first set uses data from the precourse questionnaire, the second set from the 1986 British Social Attitudes survey and the third replicates exercises from the second set on the same variables in the 1989 British Social Attitudes survey.

1: Pre-course questionnaire
2.2.1.1 [myclass] Frequencies for interval variables

2: 1986 British Social Attitudes survey
2.2.1.2 [bsa86] Exercise - Reading in data for interval variables
2.2.1.3 [bsa86] Extending your data dictionary
2.2.1.4 [bsa86] Exercise - Frequencies for interval variables
2.2.1.5 [bsa86] Specimen answer for frequencies exercise

3: 1989 British Social Attitudes survey
2.2.1.6 [bsa89] Homework exercises
2.2.1.7 [bsa89] Specimen answer for homework exercises

[Brand new: bit more housekeeping]
2.2.1.8 [bsa89] Supplementary exercise - combining your saved files

Navigate to pages:

2.3   Data transformations

Selecting **variables** for analysis, changing the **names** of variables, changing the **values** of variables. Creating **new variables** from existing ones. Selecting **cases** for analysis as a transition from analysing one variable to analysing two or more variables.

2.3.1 Data transformations (detailed contents) details the coverage and contents of each of the below.

2.3.1.1 Data transformations (Tutorial introduction)

2.3.1.2 Exercise to rename variables (this is for the 1989 BSA data: a new one is being prepared for 1986)

2.3.1.3 Conditional frequencies exercise

2.3.1.4 Specimen answers for exercise 2.3.1.3 (Conditional frequencies)
This is the final draft of a very extended and detailed exercise: it's quite long (26 pp) but manageable. It uses data from the 1986 British Social Attitudes survey as an exemplar in preparation for moving from analysing one variable to analysing two or more variables.

The following are in preparation

2.3.1.5 Conditional frequencies homework
repeating exercise 2.3.1.3 on the same variables from the 1989 British Social Attitudes survey.

2.3.1.6.ff Specimen answers for conditional frequencies homework

More data transformation exercises

Back to Block 2: Analysiing one variable
Back to Summary guide to SPSS tutorials

Block 3: Analysing two variables (and sometimes three)

A number of files for Block 3 are still in their original 1990 or 1991 format (ie WordStar 4, VMS, EDT and with syntax for interactive SPSS-X 4 on a Vax cluster: all the output is in lineprinter format) It's interesting to see how the syntax and output formats have changed. Some sample output is from SPSS -X 4 on the Vax mainframe and all jobs need re-running with SPSS 18. This is very time-consuming, but I'll get them converted and uploaded as quickly as I can. The numbering system for the files below is subject to change, but the numbers in the downloaded document titles may be different. Don't worry: the links are to the correct files.

3.1:   Two variables

Joint frequency distributions of two variables displayed in contingency tables. Dependent and independent variables: rules for percentaging. (**CROSSTABS** var1 **BY** var2)

3.1.1 Introduction to tabulation   (Recommended reading)
3.1.2   Analysing two variables   (Preliminary reading: progressionfromfrequency counts via conditional frequency counts to joint frequency counts [contingencytables])
3.1.3 Tutorial- Contingency tables from SPSS

The following materials are in preparation.

3.1.4 Exercise for contingency tables
3.1.5 Specimen answer for contingency tables exercise

3.2   Three variables
Introducing a third variable. Controlling for test variables. Elaboration.
(**CROSSTABS** var1 **BY** var2 **BY** var3)

The following materials are in preparation.

3.2.1 Tutorial - Elaboration
3.2.2 Exercise for elaboration
3.2.3 Specimen answer for elaboration exercise

3.3 Multiple response [Header page]
Explanation of multiple response questions, examples from real surveys, and exercises in analysis using SPSS.

3.3.1   Multiple response and SPSS: an introduction

3.3.2   Multiple response: British Social Attitudes 1986

3.3.3   First exercise in multiple response

3.4:   Conditional data transformations (**IF** and **DO IF**)

3.4.1 Tutorial - Conditional transformations [doc: 0.05 mb]
[No exercises yet]

3.5:   Derived variables (COUNT and COMPUTE)

Set of tutorials with fully worked examples on the use of COUNT and COMPUTE to construct scores on simple attitude scales using data from a real survey of 15 year-olds. [NB: Numbering system within the documents is retained from previous tutorials for SPSS 15 until I get time to change them and re-upload]

Block 4: Hypothesis testing

 [Provisional contents, not necessarily in this order]