

## Survey Analysis Workshop - Specimen assessment (1992)

### Component 1: Data Capture and Documentation (20%)

In the following exercise, think in terms of **variables** for analysis, especially **dependent** and **independent** variables, bearing in mind that the second component will involve using the resultant system files for analysis and writing a report.

Choose a topic from the 1989 British Social Attitudes Survey. Select at least 10, but not more than 20 variables, including attitudes and beliefs, and items which might affect variation in your dependent variables (eg attitudes to private education or NHS facilities could well be affected by experience or usage of such provision). Appropriate demographic variables should be included, as should variables from both interviewer and self-completion sections of the questionnaire. You may interpret "variable" as sometimes comprising more than one data item (eg for attitude scores or for multiple response questions)

1. Using SPSS-X, create a system file containing only those cases necessary to your analysis, plus all your selected variables, together with missing value specifications and appropriate variable and value labels. Include a document.
2. Submit the final version of your SPSS-X command file, together with your user documentation (if any).
3. Display variable labels and document. Produce frequency counts in general mode for all variables in your file.

The data are on file **ASS:BSA89.DAT** and there are 23 records per case.

The coding for open-ended questions and for the letter-coded income questions is not given on the questionnaire. See Brook, Taylor and Prior, **Technical Report**, SCPR, 1990, in Library if you need these.

Some questions are capable of more than one answer (multiple response) and special facilities are available for analysing them. If you wish to use such questions, check first, as the coding schemes vary in complexity (eg 63b, 84f (open-ended) 27b, 33a-c, 41b-d, 67, 907b, 914 (precoded)) and you may need help.

There are no multiple response items in the self-completion questionnaire for Version A. Version B has them in qq 4, 7, 15.

In general, single column fields have 8 (DK) 9 (N/A) as missing, and two column fields 98 and 99. Some variables have values 0 or -1 which need to be treated as missing. Codes 7 and 97 tend to be used for "Other uncodable" and should be treated as missing. Separate documents are supplied giving details of income codes and of data for additional variables entered on record 23.

Printing of SPSS **listing** files is by default on A4 at Ladbroke House, but to print your SPSS **command** file on A4:

```
$ LPRINT _____ .SPS
```

## **Component 2: Analysis and Report (60%)**

Write a report of not less than 2,000 and not more than 3,000 words (excluding figures and tables) to cover the following:

Introduction to the topic chosen and variables selected for your first component, including any preliminary hypotheses or ideas you had about what you expected to find or prove (or disprove) and referring to any relevant literature.

What analyses you performed on the data and why.

What your main findings were.

Methodological comments and insights.

Use the SPSS system file you generated for your first component, but amend any errors or omissions you may have made. Feel free to use any additional variables you think you need (e.g. for multiple response questions). Try to keep your final analysis simple by restricting yourself to a few key variables, if necessary by constructing scales or summary types.

There is no need to copy tables by hand into your report: just hand in your final selection as SPSS output, making sure that the tables or figures are clearly numbered and titled. You must also clearly indicate in the text which table or figure you are referring to (e.g. See Table 4 or Table 10 here) **Tables do not count towards the 1,500-2,000 words needed in the report.** Do not include more than ten tables.

## **Component three: Descriptive and Inferential Statistics (20%)**

For this component you will have to design, execute and interpret statistical analyses using SPSS-X. The format will be that of an examination paper which you will be required to complete within a limited time. The paper will be distributed on **21 May 1992**.

**SPECIMEN ONLY** 1992 format, but using 1986 data instead of 1989

**Component three: Descriptive and inferential statistics (20%)**

You may use abbreviated forms of SPSS-X commands and subcommands. All answers to be on A4 paper, including SPSS-X output, burst, with banner pages attached. No answer to be longer than two A4 sides.

File **ASS:NOPROT.SYS** contains the following variables from the 1986 British Social Attitudes Survey:

SEX REGION PARTY EDQUAL V2018 V2019 V2020 V2021 V2023 AGE

File **ASS:XMAS.SYS** contains details of numbers of injury causing accidents in 41 police authorities in Dec 1986 **INJ86** and in Dec 1987 **INJ87**

**Answer ALL questions**

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**Section A (Technical)**

**Question A1**

Using file **ASS:NOPROT.SYS** write a command file in SPSS to perform the following analysis. Construct a score **NOPROT** with a range of 0-20 from items v2018 to v2023 and recode it with four groups (0-3)(4-6)(7-9)(10-20) into **NOPROTGP**. Recode **AGE** into **AGEGROUP** (18-29, 30-44, 45-59, 60+) and **EDQUAL** into **EDGROUP** (GCE O-level and above, CSE2-5 and none) and leaving out foreign qualifications. Write appropriate variable and value labels and take account of missing values.

Produce the following output:

**frequency counts** (in general mode)

**NOPROT** with a histogram overlaid by a normal distribution; the mean, standard deviation and standard error; the lower and upper quartiles and the median.

**NOPROTGP EDGROUP AGEGROUP**

**crosstabs** (with row percent and chi-square)

Dependent variable: **NOPROTGP** (column variable)  
Independent variable: **SEX** (row variable)  
First order test variable: **AGEGROUP**  
Second order test variable: **EDGROUP**

**means** (in crossbreak format)

Dependent variable: **NOPROT**  
Independent variable: **SEX**  
First order test variable: **AGEGROUP**  
Second order test variable: **EDGROUP**

**t-test**

Dependent variable: **NOPROT**  
Independent variable: **PARTY** (Labour vs SDP/Lib)

**oneway** (with descriptive statistics and Tukey range check)

Dependent variable: **NOPROT**  
Independent variable: **REGION**

### Question A2

Using file ASS:XMAS.SYS write a command file in SPSS to find the mean number of injury causing accidents each year and plot the 1987 figures against the 1986 figures in regression format.

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### Section B (Interpretation)

#### Question B1

Write a short account of the effects of sex, age and educational level on anti-protest attitudes using **either** the crosstabs output **or** the means/crossbreak output.

Construct an appropriate summary table using **either** percent "Definitely not allow" **or** mean anti-protest score.

#### Question B2

Choose **TWO** of the following inferential statistics topics and, from the SPSS output for section A, explain what the test is, what the technical and statistical terms are and why the test was used for these data.

What do the results tell you?

**chi-square** (but **not** Likelihood ratio or Mantel-Haenszel)

**t-test**

**oneway analysis of variance**

**linear regression**

(Draw an approximate regression line on the plot and comment generally on your results. What would be your best estimate of the number of injury causing accidents in 1987 for an authority which had 300 in 1986?)

## **Guidelines for preparation of assessed coursework**

### **Component 1: Data capture and documentation (20%)**

This component should consist of **two** SPSS command files; the first will be your initial file to include:

**data list**  
**missing values**  
**variable labels**  
**value labels**  
**save**

The second SPSS command file to include all the commands and specifications (document, recode, compute, select if, if, save) used for documentation, data transformation or construction of derived variables. These can be produced using:

```
$ LPRINT _____sps
```

Finally, you should submit one SPSS listing file with:

```
set length 72 width 80 print off.  
title .....(to include your student number)  
get file .....  
display labels.  
display document.  
frequencies (in general mode for all variables except those with more than 20 values, e.g. age)
```

Remember, one criterion for this component is to enable someone else to understand what you are doing and to carry on where you leave off, or work on your material when you are not there. You may submit notes in addition to your SPSS output if you wish, but these should not cover more than 2 sides of A4.

### **Component 2: Analysis and Report (60%)**

This should be submitted double-spaced, single-sided (preferably typed) on A4 paper. SPSS output containing tables and figures for your report can be appended to your text. Use:

```
set length 72 width 80 print off.  
title .....(to include your student number)  
subtitle .....(Table/Figure number)
```

### **Component 3: Descriptive and Inferential Statistics (20%)**

To be run as one SPSS job with:

```
set len 72 wid 80  
title (to include your candidate number)  
subtitle (as appropriate)
```

**The Polytechnic of North London  
Faculty of Environmental and Social Studies  
School of Policy Studies and Social Research  
Survey Research Unit**

**SR501: Survey Analysis Workshop**

**Assessment 1991/92**

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**Name:**

**Student ID Number:**

-----  
**Vax Username:**

**Password:**

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**Data Set:**

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**Analysis Topic:**

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**Working Title:**

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**Variables:** (Give question(s) and data position(s))

**Dependent**

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**Independent**

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**Summary proposal**

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**Signed:**

**Date:**

**To be submitted by 4pm on Friday 13 March 1992**