Examining fear of crime using the Crime Survey for England and Wales (CSEW)

Research shows the public is concerned about crime…some criminologists conclude that fear of crime poses almost as large a threat to society as crime itself (Clemente and Kleinmen, 1977).

Some individuals and some geographical areas are more vulnerable to crime than others and certain groups fear crime more (Pantazis and Gordon 1999:198).

In this worksheet, you will use SPSS to analyse real survey data about the fear of crime. In particular, you will use the Crime Survey for England and Wales to address the following questions:

- Is fear of crime prevalent in England and Wales?
- Are there gender differences in the fear of crime?
- Does fear of crime relate to age?

Follow instructions marked with a ➔ on your computer.

Go at your own pace. You may not finish all the exercises in the session but you can return at any point.

The data: Crime Survey for England and Wales (CSEW)

The Crime Survey for England and Wales (CSEW) is a face-to-face victimisation survey in which people resident in households in England and Wales are asked about their experiences of a range of crimes in the 12 months prior to the interview.

THE CSEW also contains questions on respondents' perceptions of crime. These include questions on perceived levels of crime in the country as a whole and in the local area, worry about crime and perceived likelihood of victimisation.

Here we use the 'Crime Survey for England and Wales 2013-2014: Unrestricted Access Teaching Dataset'. This is an open version of the dataset for teaching and student use that you can use without registering with the UK Data Service. It contains data for 8,843 cases from the CSEW 2013-14 (non-victim form dataset) for a small selection of variables.

1 Before you start, think!

Before analysing data, consider what patterns you might expect to find. Think about the following questions:

- Do you think fear of crime is common in England and Wales?
- Are there likely to be gender differences in the fear of crime?
- Does fear of crime relate to age?

2 Get the data

➔ go to www.ukdataservice.ac.uk

➔ in the search box, type Crime Survey for England and Wales 2013-2014 and click search

➔ find the **SN 8011 Crime Survey for England and Wales 2013-2014: Unrestricted Access Teaching Dataset.** Make sure you choose the correct dataset!

➔ click on the dataset title

Clicking on the dataset title will take you to the catalogue page, which includes useful information about the dataset such as *when and how data was collected, the topics covered and the sample size. You can also find further documentation such as user guides and questionnaires.*

To download the data and extract files

➔ Click on the Access tab
➔ Choose the SPSS download which is a zip file containing the data and documentation
➔ Save/open the zip and select 'Extract all files' (save somewhere you will find it e.g. Desktop)

3 Open the data in SPSS

One way to open the data in SPSS is to:

➔ open SPSS (click on the Start icon at bottom left of your screen and type SPSS in the search)

If a dialogue box pops up, close it.

➔ click on the open file icon  near the top left of the screen
➔ find your file
➔ open the folder called 'SPSS'
➔ select the data file 'csew1314teachingopen.sav' (*Tip: SPSS data are normally in .sav files).*

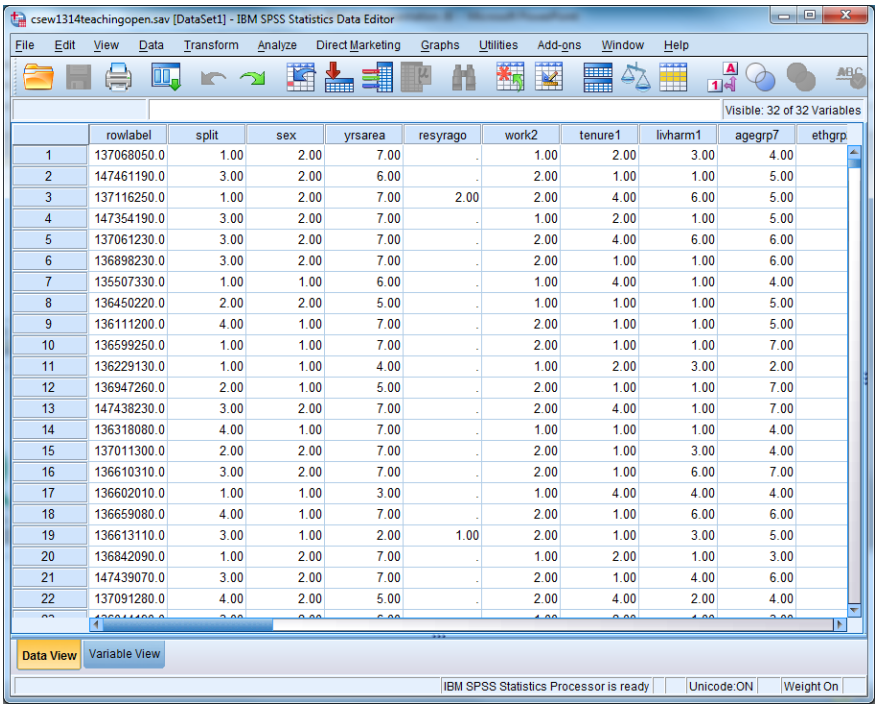
4 SPSS environment

The main window in SPSS is the Data Editor.

The menus tool bar is at the top.

The Data Editor includes a

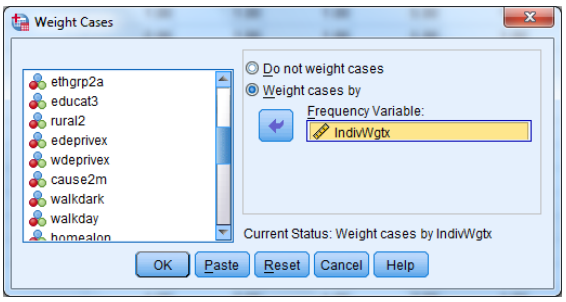
1. Data View, where rows contain cases or observations and the columns relate to variables in the dataset.
2. Variable View, where the rows contain variables and the columns give information about each variable e.g. the Variable name, label and missing items.



You switch between the Data View and Variable view using the tabs at the bottom left.

5 Survey weights

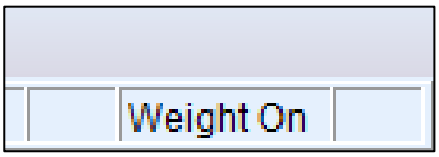
Survey weights make sample data more representative of the population and you generally need to use weighted results. You apply the weight before you start your analysis using a simple process.



➔ First, press the weighting icon  on the tool bar at the top to open the 'Weight Cases' Dialogue box.

In the 'Weight Cases' Dialogue box,

➔ find the weighting variable (IndivWgtx) in the list on the left
➔ select the variable and move it into the box on the right > click OK.



➔ check the weight is applied by looking at the bottom right corner of the Data Editor. It should display 'Weight On'.

Tip: Find out more about weights in our guide 'Using Survey data'

6 Exploring fear of crime

6.1 Understanding variables

The variable Walkdark is commonly used to measure fear of crime. With survey data, variables typically relate to survey questions, which you can find in the questionnaire. Here is the question for walkdark:

> **WALKDARK [ASK ALL MODULE D RESPONDENTS]**
>
> How safe do you feel walking alone in this area after dark? Would you say you feel...READ OUT
>
> NOTE: IF RESPONDENT NEVER GOES OUT ALONE AT NIGHT, PROBE: How safe WOULD you feel?
>
> 1. Very safe
> 2. Fairly safe
> 3. A bit unsafe
> 4. or very unsafe?

How well do you think this question can measure fear of crime? Here are some comments from the survey report:

- *It presents a more or less specific situation or stimulus – walking alone after dark.*
- *Assessments of risk are implicit, since feelings of safety on neighbourhood streets at night presumably reflect beliefs about the likelihood of victimisation.*
- *The question asks specifically about night-time safety primarily because other studies have found that few people feel unsafe walking in their neighbourhood during the day*
- *It may conceal the true extent of fear among men: whereas women may feel little reluctance to admit to feeling uneasy on the streets at night, men may be wary of expressing similar fears.*
- *the measure obviously refers only to street crime, which is relatively rare, spatially concentrated, only one of a number of crime threats people fear*

6.2 Frequency table

Examine the responses to Walkdark using a frequency table.

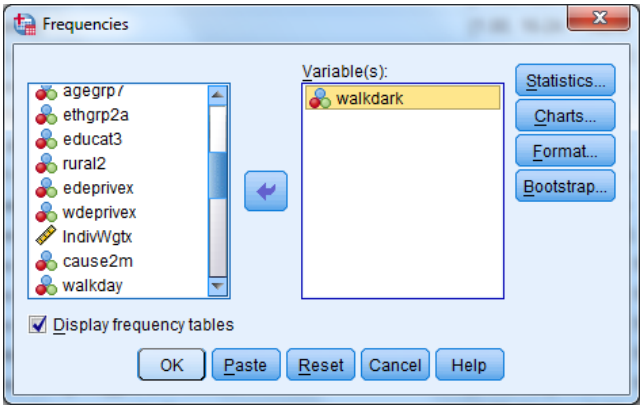
➔ Using the menus in SPSS, select Analyze > Descriptive Statistics > Frequencies...

Tip: Walkdark is a categorical variable (Categorical variables are common in survey data because questionnaires include lots of tick-box questions). Frequency tables are a good way to explore categorical variables.

In the 'Frequencies' dialog box,

➔ select the variable walkdark
➔ press the arrow to move the variable into the right hand box > click OK

❖ Tip: You can search variables beginning with w by clicking on a variable in the list and typing 'w'.



Results appear in the Output Viewer window. The small table that appears first summarises the number of valid and missing responses. The larger table gives the frequencies and percent for each category.

Missing values

Knowing the reasons for missing values is important for ensuring you interpret figures correctly.

Question: In the category 'System', how many missing values are there?

Why are there are so many system missing values?

The System missing values are because not everyone was asked the question. In the CSEW, respondents are randomly allocated into one of four sub-samples, A, B, C or D and some questions are only asked of a sub-sample of respondents. If you look at the sample from the questionnaire on the previous page, you'll see it says 'ASK ALL MODULE D RESPONDENTS'.

Question: What percentage feels either a bit or very unsafe walking alone after dark? Is this higher or lower than you would have expected?

Tip: Percent and valid percent
'Percent' displays the percent of cases in each category.
'Valid Percent' displays the percent of cases in each category excluding the missing values.
It will usually make more sense to refer to the valid percent when interpreting the data.

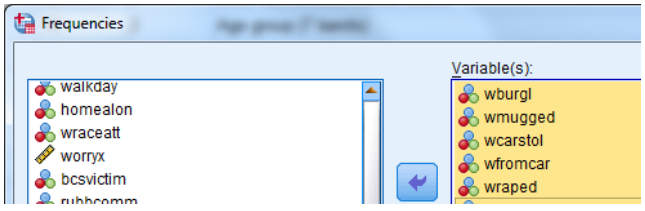
6.3 Other variables

The dataset contains other variables that relate to fear of crime:

- walkday 'How safe do you feel walking alone in this area during the day?'
- homealon 'How safe do you feel when alone in home at night?'
- wburgl 'How worried about having your home broken into?'
- wmugged 'How worried about being mugged and robbed?'
- wcarstol 'How worried about having car stolen?'
- wfromcar 'How worried about having things stolen from your car?'
- wraped 'How worried about being raped?'
- wattack 'How worried about being physically attacked by strangers? '
- wraceatt 'How worried about being attacked because of skin colour, ethnic origin or religion?'

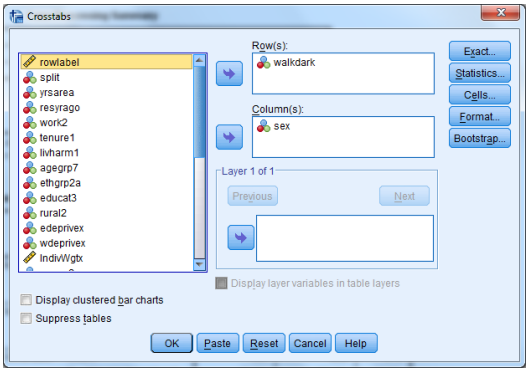
➔ Select some of interest to you and examine their frequency tables

Tip: you can ask SPSS to run tables for multiple variables simultaneously. Simply add all variables to the list in the Frequencies dialogue box.



7 Gender and age differences: two-way tables

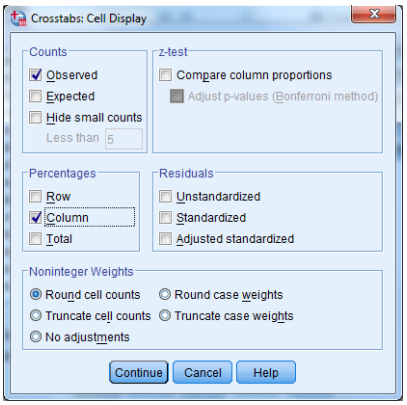
We now know that nearly 30 percent of adults feel either a bit or very unsafe walking alone after dark. But is this the same for men and women? To examine, we will use the variable walkdark and a crosstabulation to examine differences between men and women.



- ➔ select Analyze> Descriptives> Crosstabs…
- ➔ Put Walkdark in the Row(s) and sex in the Column(s)

We need to ask SPSS to include percentages in the table

- ➔ Select the box Cells from the right
- ➔ In the Crosstabs: Cell Display dialogue box, Select column percentages and click Continue
- ➔ Click OK



❖ *Tip: It does not really matter which variable goes in the row and which in the column. In the social sciences, it is common to put the output variable (the one you are interested in explaining) in the row the explanatory variable (the one that might influence the other) in the column. When comparing groups, percentages for each group should add up to 100 percent. We are interested in looking at the effect of sex on fear of crime and sex is in the columns, we therefore asked for column percentages.*

You should see the following table:

How safe do you feel walking alone after dark? * Adult number 1 (respondent): Sex Crosstabulation

			Adult number 1 (respondent): Sex		Total
			Male	Female	
How safe do you feel walking alone after dark?	Very safe	Count	470	176	646
		% within Adult number 1 (respondent): Sex	46.6%	16.4%	31.0%
	Fairly safe	Count	405	433	838
		% within Adult number 1 (respondent): Sex	40.1%	40.3%	40.2%
	A bit unsafe	Count	104	309	413
		% within Adult number 1 (respondent): Sex	10.3%	28.8%	19.8%
	Very unsafe	Count	30	156	186
		% within Adult number 1 (respondent): Sex	3.0%	14.5%	8.9%
Total		Count	1009	1074	2083
		% within Adult number 1 (respondent): Sex	100.0%	100.0%	100.0%

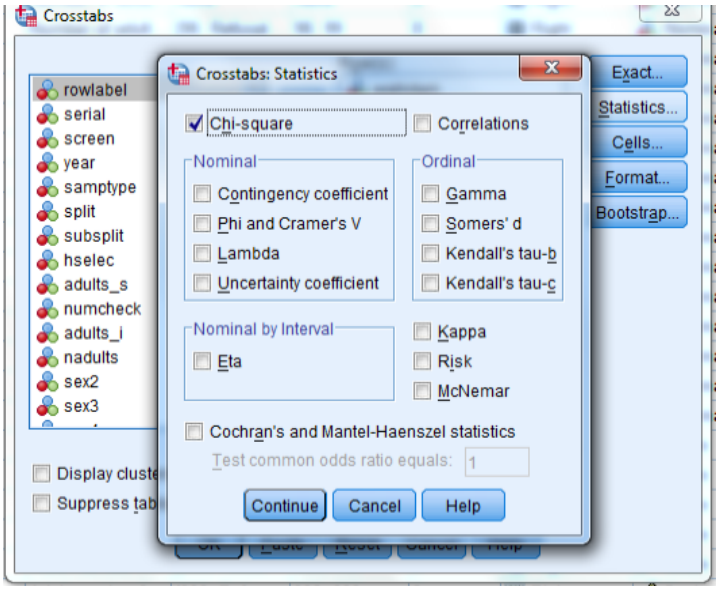
This table tells us that 31 percent of adults report feeling 'very safe' walking alone after dark (see the Total column on the right) but the proportion for women is only 16.4 percent.

What proportion of females feel 'very unsafe' walking alone after dark? How does this compare to males?

8 Extra activities:

8.1 A chi-square test

A Pearson's chi-square test is commonly used when examining relationships between categorical variables. Pearson's chi-square is a test of statistical significance. It is used to evaluate how likely it is that any observed difference between groups have occurred by chance.



In SPSS, you can get a chi-square test through the crosstab menu.

➔ Analyze>Descriptive Statistics>Crosstab

In the Cross-tabs dialogue box,

➔ select Statistics...(on the right)

This will open a new dialogue box,

➔ select Chi-square
➔ press Continue

In the Cross-tabs dialogue box,

➔ press OK

The results appear in a table where the first row reports the Pearson Chi-square Value, degrees of freedom and the significance value.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	320.131[a]	3	.000
Likelihood Ratio	337.669	3	.000
Linear-by-Linear Association	310.962	1	.000
N of Valid Cases	2083		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 90.10.

In this case, the results suggest the difference between males and females is statistically significant.

8.2 Age differences

The dataset contains the following variable: agegrp7 'Age group (7 bands)'. Since age is measured using bands, use a crosstabulation to explore the relationship between age and fear of crime.

➔ Run and interpret a crosstabulation

Question: How does age relate to feeling unsafe walking alone after dark? Summarise the pattern with reference to the percentages in the table.

8.3 Other variables

Do you think gender and age difference might vary by type of crime?

➔ Select some of the variables examined earlier to explore.