MODULE 6

Browsing And Analysing Evidence: A guide to Using Nesstar
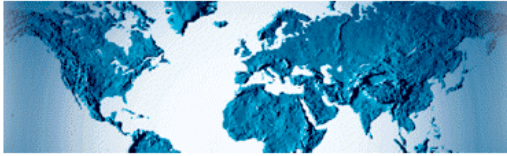
Survey Data in Teaching

enhancing critical thinking and
data numeracy

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Module 6:
Browsing And Analysing Evidence:
A guide to Using Nesstar

Nesstar is an entrance to **a virtual data library** allowing you to search for, locate, browse and download a wide variety of statistical and related data

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In this module:

- You learn how to access and browse survey data using an online system
- You learn about how survey data are described
- You gain familiarity with the British Crime Survey dataset
- You learn how to produce tables and graphs online

Overview

In the previous module you learned how to navigate some of the resources available on the web, including the UK Data Archive, the Social Science Information Gateway (SOSIG). You also learned how to search for other data and explored links to other useful sites to do with statistics, such as the National Statistics Online web site

In this module you will find out about the online data browsing and exploration system Nesstar, and how to access data within it. You will become familiar with the British Crime Survey dataset and understand what metadata (data about data) can tell us. You will explore the variables in the dataset, conduct a cross-tabulation, and learn to interpret and graph the results.

What is Nesstar?

Nesstar is a web-based system for accessing data. The system allows users to search for, locate, browse, analyse and download a wide variety of statistical data within a web browser. There is no need for specialised software – data held on a Nesstar server can be viewed by anyone with a web browser (for example Internet Explorer 5.5 onwards).
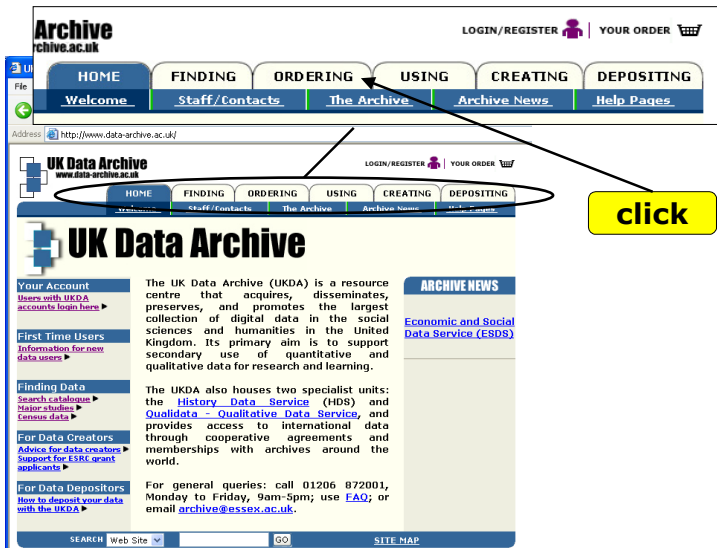
How do I access Nesstar?

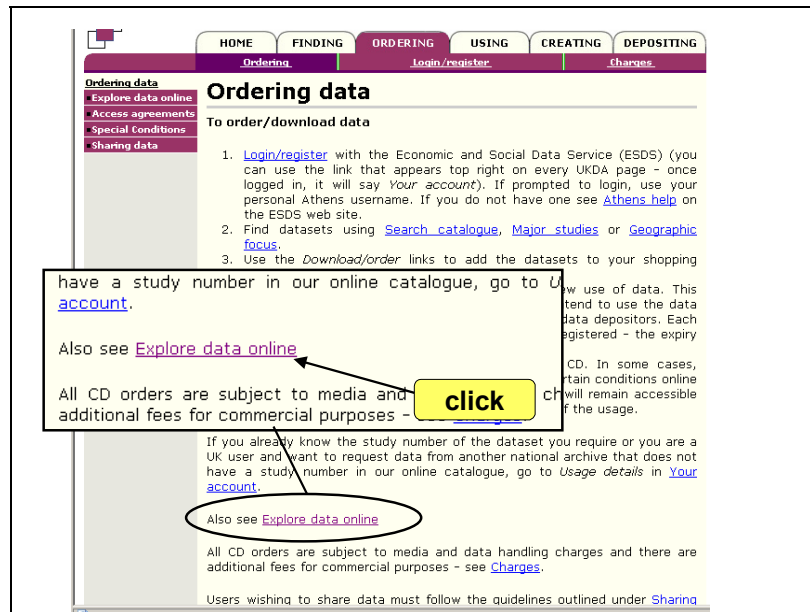The simplest way to access Nesstar is to type in the address in your browser:

nesstar.esds.ac.uk/webview/index.jsp

Nesstar can also be accessed from the UK Data Archive web site
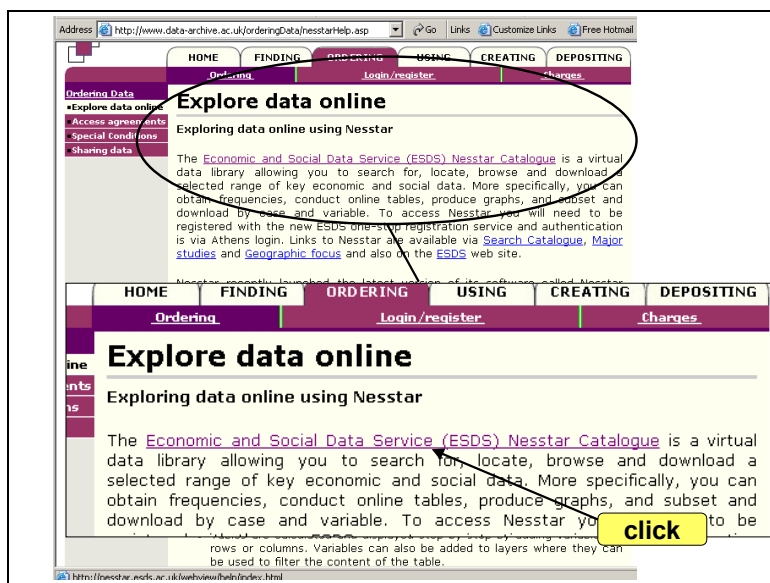
www.data-archive.ac.uk/.

From www.data-archive.ac.uk/ click on the **ORDERING** tab at the top of the page
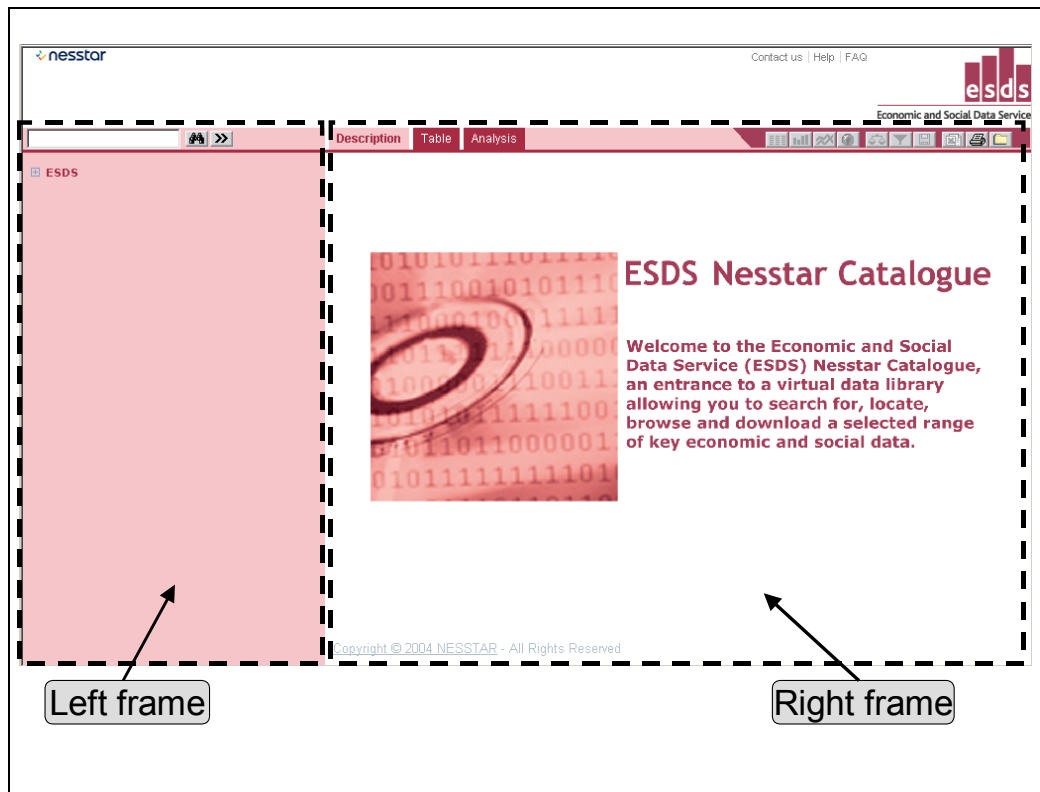

Then click on the **Explore data online** link

Then link to the (ESDS) Nesstar catalogue

Using Nesstar

Let's start by describing the features of Nesstar.

The Nesstar screen is divided into left and right frames: the left frame has a pink background and the right frame is white.
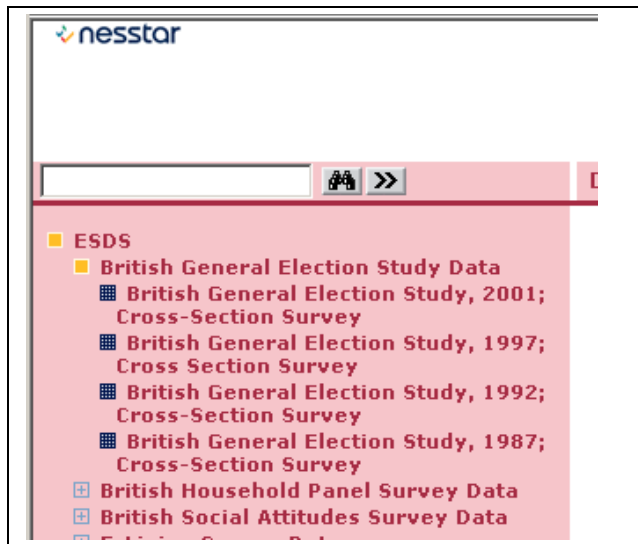
The left frame

This is used to select the dataset and the information which is required.

At the top of the frame is a folder called **ESDS**. Click on the + sign next to the folder to open up its contents.

This causes a number of other folders to pop down. These are the sets of surveys which are available for examination.
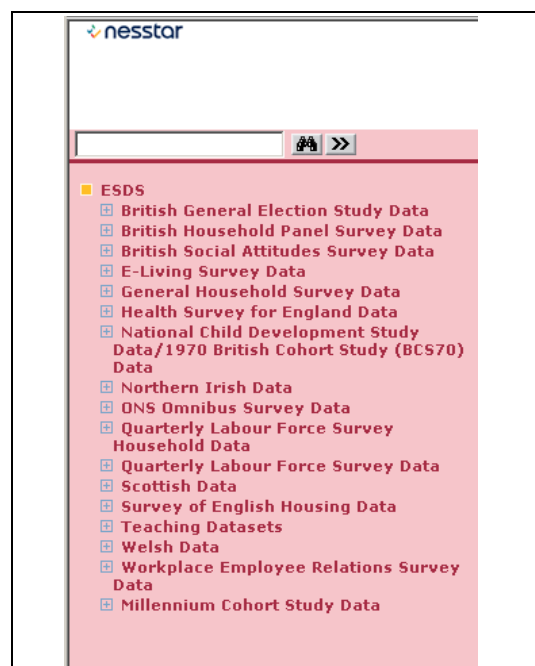
If you click on the ⊞ sign next to any dataset a number of individual surveys (either of different topics or the same topic for different years) drops down, each with its own symbol ▦. The ⊞ sign then changes to a yellow square. For example, if you click on the British General Election study survey you will get all the surveys conducted since 1987.

We are going to use the **British Crime Survey, 2000: X4L SDiT Teaching Dataset**, which is in the **Teaching Datasets** folder.

This teaching dataset does not require registration with the UK Data Archive, unlike most of the other datasets which require registration to use some (but not all) of the data analysis functions.

The right frame

This is used to obtain the results. When any action is performed in the left frame of the interface, the results are displayed in the right frame. We will see this when we come to browse information about the study and explore the data.
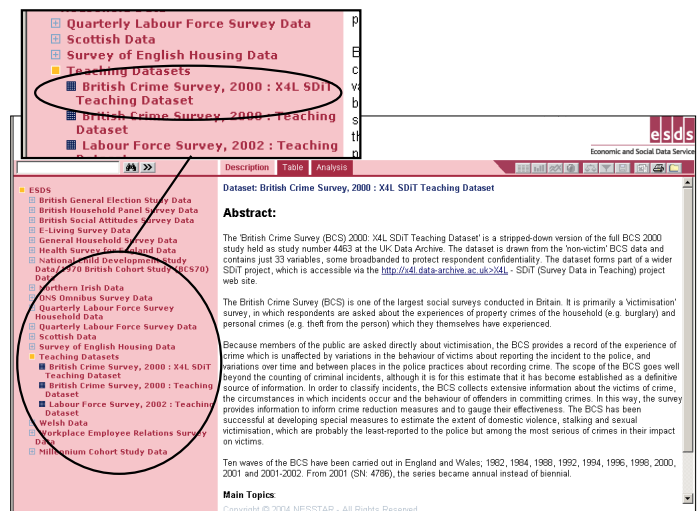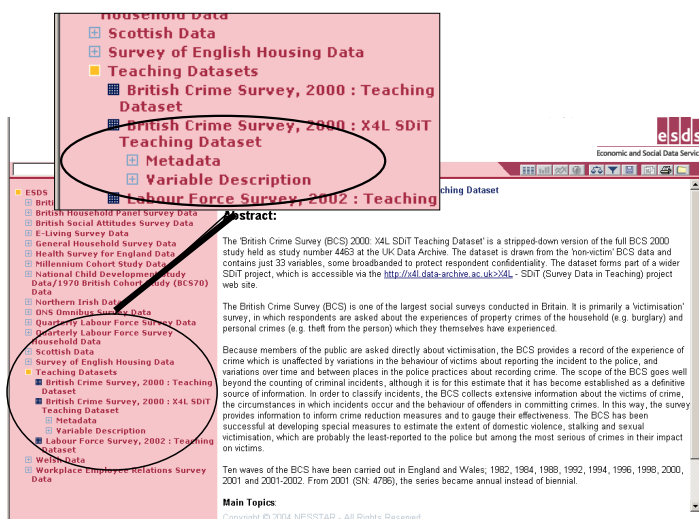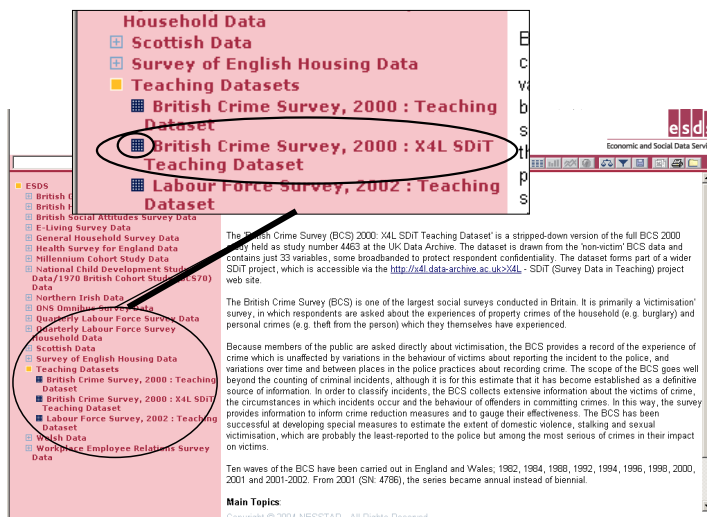

Getting started

Web Exercise 1
Becoming familiar with the British Crime Survey dataset

Open up the X4L British Crime
Survey for 2000 by clicking on the
▦ symbol.

You will be presented with two
further sub-folders or 'trees':
'**Metadata**' and **'Variable
Description'**. Each of these trees
contains important information
about the British Crime Survey
dataset.

What is metadata?
Metadata, or 'data about data', is
defined as information about data
and is an integral component of a
dataset.

Metadata can include such items as:

- Questionnaires;

- a keyword list of names and items;

- a record of how the data were collected;

- an inventory of related data and publications;

- information on principal investigators;

- geographical coverage.

Metadata is important as it provides essential information on the use and interpretation of
information contained in a data file. It outlines what datasets are available, where they can
be found, what format they are in, how they should be used, and can provide a permanent
record in catalogues and search facilities of the resources that are available.

What can the British Crime Survey metadata tell us?

If you click on the [+] sign next to **Metadata** you will open up two new folders: **Study Description** and **Other Documentation**. You should also notice that in the right frame, the survey's A*bstract* has appeared. The Abstract broadly describes the contents and history of the survey. Open up the **Study Description** folder by clicking on the [+] sign and you will be presented with further metadata options. Click on each of these options to examine what metadata they contain in the right frame. From within these options, try to answer the following questions (note that you may need to scroll down the right frame to find the answer):
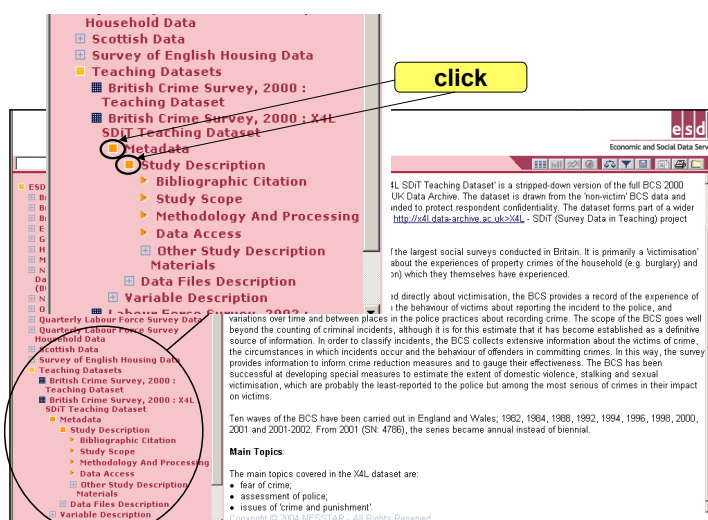
- **Who deposited the British Crime Survey data?**
- **Who collected the data?**
- **Where are the data located?**

Web Exercise 2
Examining variables

The Variable Description tree:

Close the metadata folder by clicking on the yellow square, and open up the **Variable Description** folder by clicking the [+] sign next to it. The Variable Description tree houses a list of sub-folders – for example, 'Demographics'. Each of these sub-folders contains a list of variables, created from the responses to the British Crime Survey.

 Click on the [+] sign next to the folder called **Fear of crime** to view a list of the variables categorised under that topic.

 Now click where it says **How worried about your car stolen?** Displayed in the right frame you should now see the actual question asked in the survey and the possible responses to the question together with the coded value for each response and the respondent totals and percentages.

- **What were the possible responses to the survey question?**

- **What percentage of the survey respondents reported being 'Fairly worried' that their car would be stolen?**

- **How many 'Valid cases' are included in the output? (We will deal with valid and invalid cases later).**

- **Click on other variables in the left frame to produce frequency distributions for other survey questions and try to interpret what you see?[1]**

Web Exercise 3
Cross-tabulation

By now, you should have a good idea about what information is contained in the British Crime Survey dataset and how to access that information. You should have produced a frequency distribution for at least one variable (what data analysts term univariate analysis).

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[1] There is another useful exercise involving the British Crime Survey questionnaire in Module 3 of the UKDA X4L SDiT materials, available at x4l.data-archive.ac.uk/learning/module3/

You are now ready to undertake some simple analysis using two variables at the same time (bivariate analysis).

A common technique used for bivariate analysis is cross-tabulation. Cross-tabulation allows the analyst to compare the responses given to one survey question by the responses given to another. So, we might want to compare what people think about the job that the police are doing according to which region they live in. Here, we would be cross-tabulating the variable **How worried about car crime?** with the variable **Standard region'**.

Conducting a cross-tabulation

To conduct the cross-tabulation (or cross-tab) click the Table button on the right frame. This will then bring up a blank table.
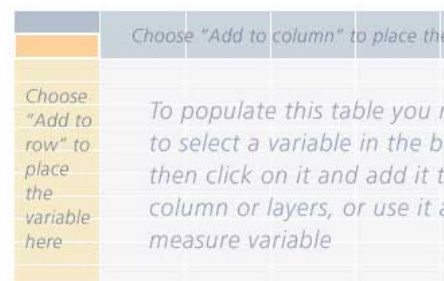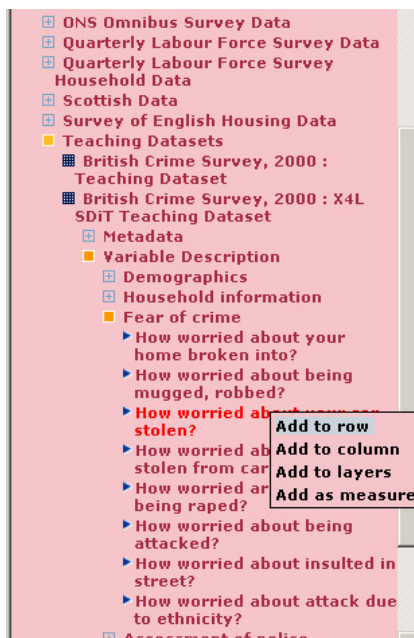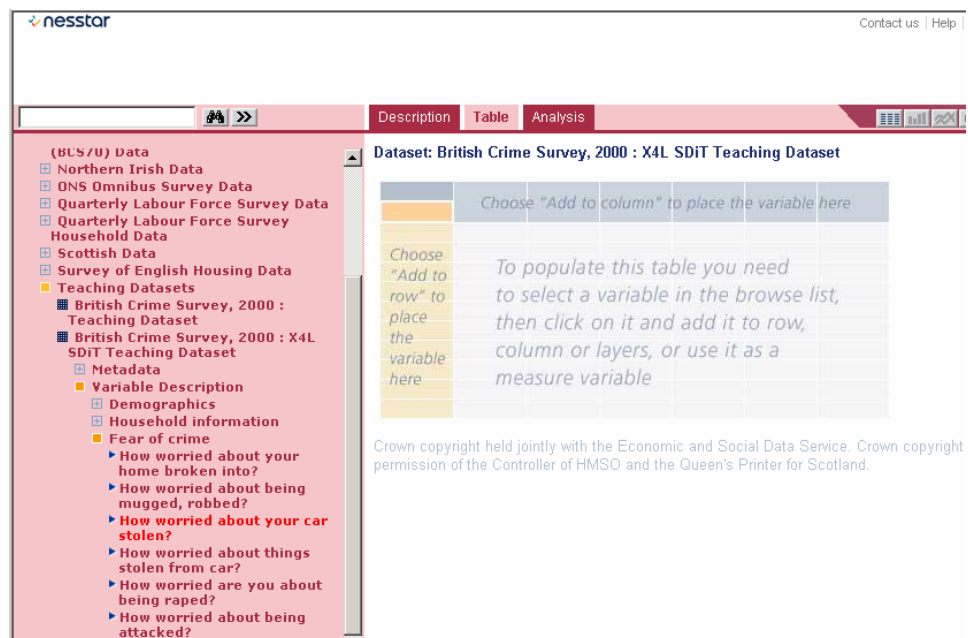
Then you add two (or more) variables into either the rows or the columns. You select these in the same way as for a single variable. If you select **fear of car crime** as you did above, a new pop-up box appears. In this instance, select the **Add to row** choice.

This will then give you a frequency table for this variable.

We are, of course, interested in two variables for our cross-tab. In precisely the same way, you should therefore also add the variable **Standard region** (selected by clicking on the ➕ sign next to the **Household information** folder) to the columns using the **Add to columns** option. This will then give you a two-way, cross-tabulated table in the right frame.

What do the results tell us?
• Of those people in East Anglia, what percentage are not very worried about car crime?
• Of those in the North, what percentage are very worried about car crime?
• Which region has the least concern about car crime? How do you arrive at this conclusion?
• Experiment by creating other two-way cross-tabs – what do you find?[2]

Graphs and charts

Nesstar also enables us to display our results in graphical form. When you have a table displayed in the right frame, click on the graph button at the top right of the right hand frame to choose from a number of types of graph. Tables or graphs can be printed by clicking the print icon on the penultimate right hand side.

Tables can be exported straight into an Excel spreadsheet by clicking the icon further to the right.

A more complete guide to using Nesstar can be found at nesstar.esds.ac.uk/webview/help/index.html.

Remember that to analyse datasets other than the X4L SDiT version of the British Crime Survey, you will need to be registered with the Economic and Social Data Service (www.esds.ac.uk/).

SUMMARY
• You have learned how to access and browse survey data using an online system.
• You have learned how survey data are described.
• You have gained familiarity with the British Crime Survey dataset.
• You have some experience in producing tables and graphs online using the Nesstar system.

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[2] There is a useful guide to handling two-way, cross-tabulated tables in module 4 of the UKDA X4L SDiT project materials, available at x4l.data-archive.ac.uk/learning/module4/