Introduction to SPSS

SPSS is the acronym for **Statistical Package for the Social Sciences**.

SPSS (Statistical Package for the Social Sciences) has now been in development for more than thirty years. Originally developed as a programming language for conducting statistical analysis, it has grown into a complex and powerful application with now uses both a graphical and a syntactical interface and provides various functions for managing, analyzing, and presenting data.

Its statistical capabilities alone range from simple percentages to complex analyses of variance, multiple regressions, and general linear models. SPSS also provides extensive data management functions, along with a complex and powerful programming language.

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Here you will be exploring the various functions for managing your data, conducting statistical analyses, creating tables and charts, and preparing your output for incorporation into external files such as spreadsheets and word processors.

Introducing the interface:

When you use SPSS, you work in one of several windows: the data view, the variable view, the output view, the draft output view, and the script view. You'll also use the syntax editor to save or refine your queries.

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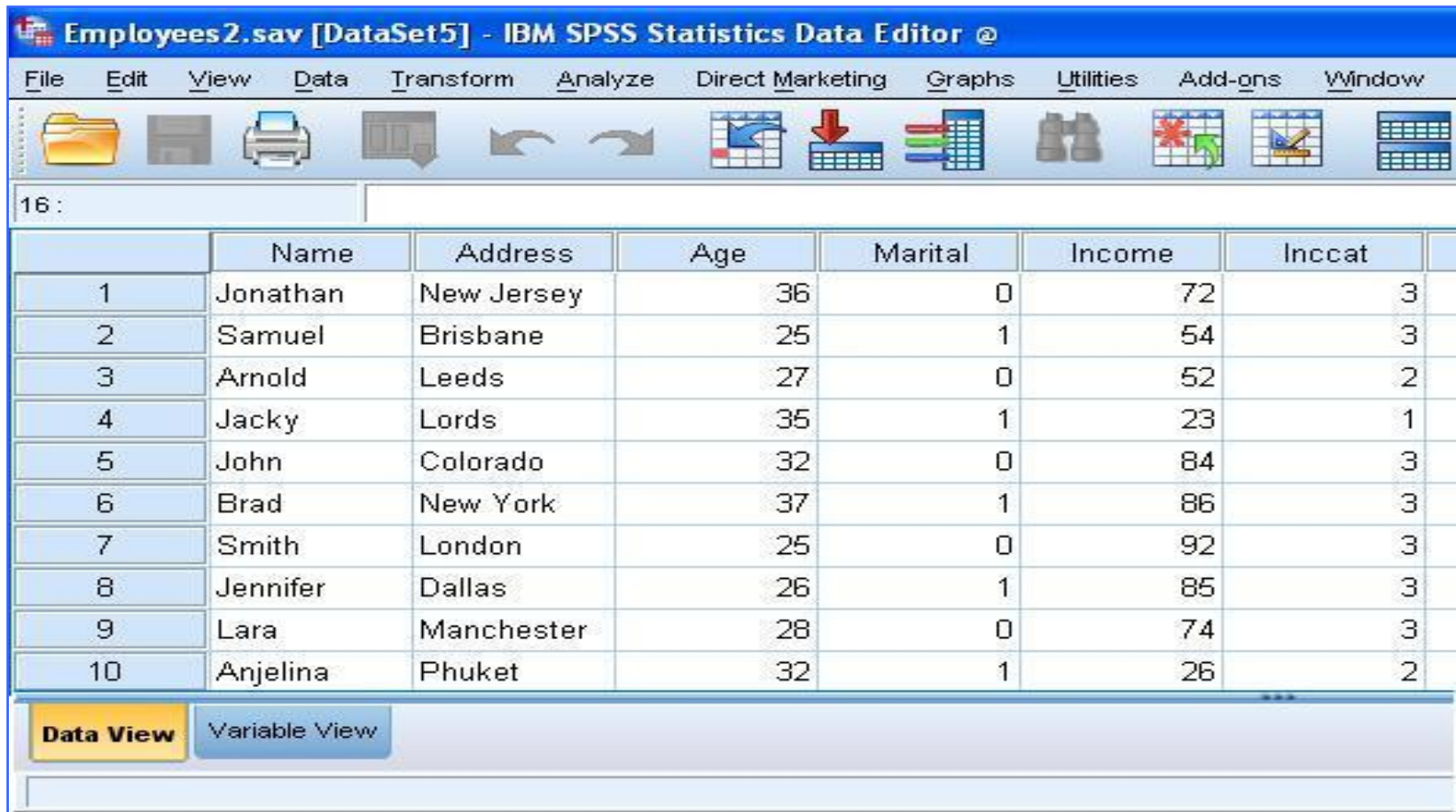
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The data view:

The data view displays your actual data and variables you have created.

1. From the menu, select File > Open > Data.

2. In the Open File window, navigate to C:\SPSSData\Employees2.sav and open it by double-clicking. SPSS opens a window that looks like a standard spreadsheet. In SPSS, columns are used for variables, while rows are used for records.

3. Press **Ctrl-Home** to move to the first cell of the data view.

4. Press **Ctrl-End** to move to the last cell of the data view.

5. Press **Ctrl-Home** again to move back to the first cell.

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The data view:

SPSS data editor screenshot — Employees2.sav [DataSet5] - IBM SPSS Statistics Data Editor

	Name	Address	Age	Marital	Income	Inccat
1	Jonathan	New Jersey	36	0	72	3
2	Samuel	Brisbane	25	1	54	3
3	Arnold	Leeds	27	0	52	2
4	Jacky	Lords	35	1	23	1
5	John	Colorado	32	0	84	3
6	Brad	New York	37	1	86	3
7	Smith	London	25	0	92	3
8	Jennifer	Dallas	26	1	85	3
9	Lara	Manchester	28	0	74	3
10	Anjelina	Phuket	32	1	26	2

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The variable view:

At the bottom of the data window, you'll notice a tab labeled Variable View. The variable view window contains the definitions of each variable in your data set, including its name, type, label, size, alignment, and other information.

1. Click the Variable View tab.

2. Review the information in the rows for each variable.

3. Click the Data View tab to return to the data.

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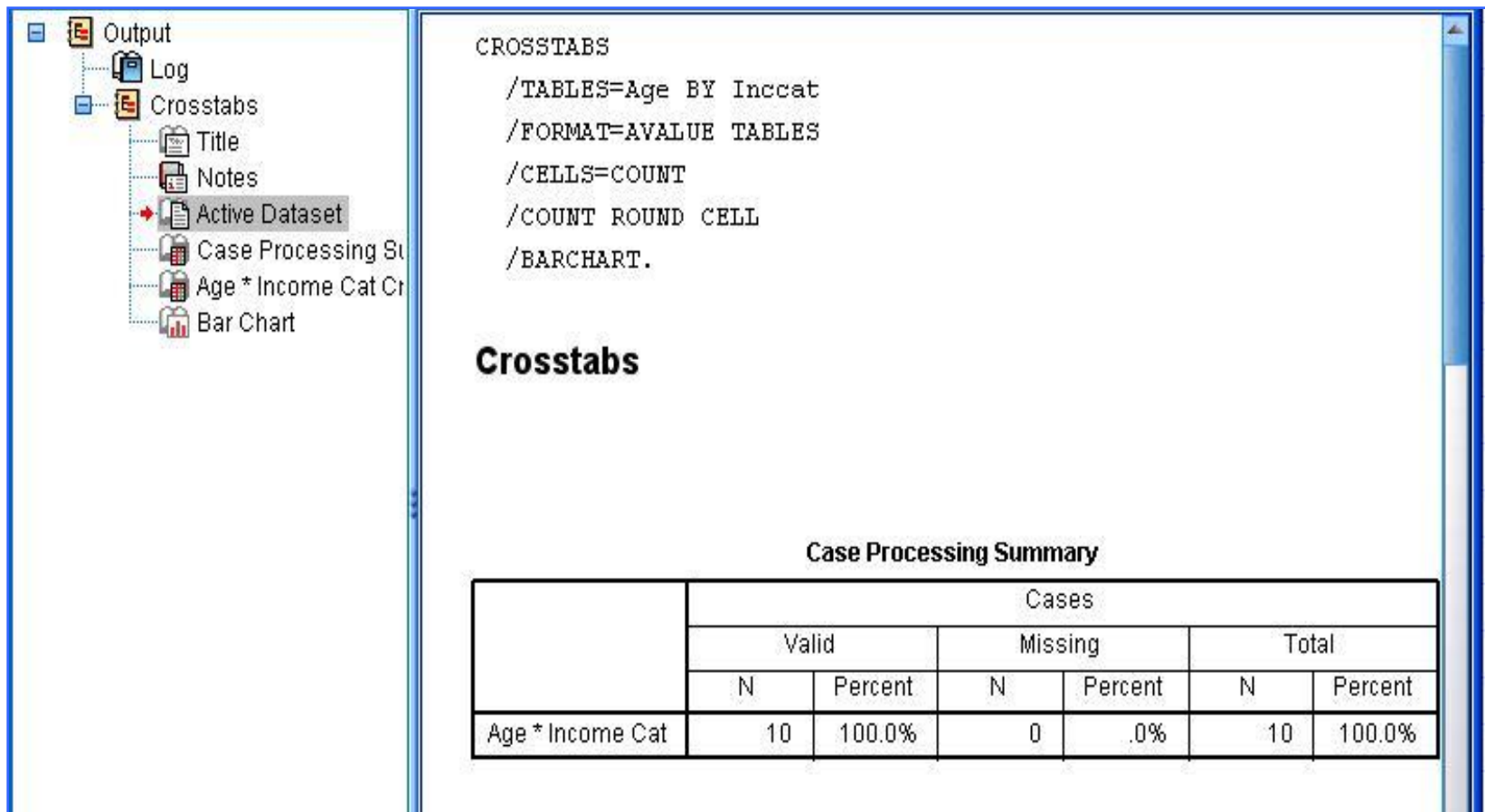
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The variable view:

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The output view:

The output window is where you see the results of your various queries such as frequency distributions, cross-tabs, statistical tests, and charts. In Excel, you're probably used to seeing all your work on one page, charts, data, and calculations. In SPSS, each window handles a separate task. The output window is where you see your results.

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The output view:

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The syntax view:

Although most of your daily work will be done using the graphical user interface, from time to time you'll want to make sure that you can exactly reproduce the steps involved in arriving at certain conclusions.

In other words, you'll want to replicate your analysis. The best method of preserving the exact steps of a particular analysis is the syntax view. In the syntax view, you'll preserve the code used to generate any set of tables or charts.

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The syntax view (cont'd):

Syntax is basically the actual computer code that produces a specific output. It looks like this:

```
CROSSTABS
/TABLES=age BY Inccat
/FORMAT= AVALUE TABLES
/CELLS= COUNT
/COUNT ROUND CELL
/BARCHART .
```

In the code shown above, SPSS is instructed to create crosstabs, using the variable Age, sorting the crosstabs by Inccat using a specific format, to put a count into each cell, and then to create a corresponding barchart.

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