**The Data File**

Before you can analyze data, you need to create a file which holds them. To illustrate the way in which these files are produced, we will use an imaginary set of data from a questionnaire study which is referred to as the **Job Survey.**

The data relating to this study derive from two sources: a questionnaire study of employees who answer questions about themselves and a questionnaire study of their supervisors who answer questions relating to each of the employees. The questions asked are shown in Appendix 2.1, while the coding of the information or data collected is presented in Table 2.1. The cases consist of people, traditionally called *respondents* by sociologists and *subjects* by psychologists whose preferred term now is *participants*.

Although questionnaire data have been used as an example, it should be recognized that SPSS and the data analysis procedures may be used with other forms of quantitative data, such as official statistics or observational measures.

**TABLE 2.1** The Job Survey data

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| 01 | 1 | 1 | 16600 | 29 | 1 | 4 | 0 | 3 | 4 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 0 | 1 | 7 |
|----|---|---|-------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02 | 2 | 1 | 14600 | 26 | 5 | 2 | 0 | 0 | 2 | 3 | 2 | 2 | 1 | 2 | 3 | 4 | 4 | 4 | 1 | 3 | 4 | 4 | 8 |
| 03 | 3 | 1 | 17800 | 40 | 5 | 4 | 4 | 4 | 4 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 1 | 4 | 3 | 4 | 0 |
| 04 | 3 | 1 | 16400 | 46 | 15 | 2 | 2 | 5 | 2 | 4 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 4 | 4 |
| 05 | 2 | 2 | 18600 | 63 | 36 | 4 | 3 | 4 | 4 | 1 | 2 | 3 | 3 | 3 | 4 | 5 | 5 | 4 | 1 | 3 | 5 | 3 | 0 |
| 06 | 1 | 1 | 16000 | 54 | 31 | 2 | 2 | 5 | 3 | 3 | 2 | 1 | 1 | 2 | 4 | 4 | 4 | 4 | 1 | 1 | 3 | 4 | 1 |
| 07 | 1 | 1 | 16600 | 29 | 2 | 0 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 5 | 4 | 2 | 2 | 3 | 5 | 2 | 0 |
| 08 | 3 | 1 | 17600 | 35 | 2 | 5 | 2 | 2 | 4 | 2 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 4 | 4 | 2 |
| 09 | 2 | 2 | 17600 | 33 | 4 | 3 | 3 | 1 | 2 | 4 | 2 | 3 | 4 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 1 | 5 |
| 10 | 2 | 2 | 13800 | 27 | 6 | 4 | 3 | 2 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 4 | 3 | 5 | 1 | 2 | 2 | 4 | 4 |
| 11 | 1 | 1 | 14200 | 29 | 4 | 2 | 2 | 4 | 1 | 4 | 2 | 1 | 1 | 2 | 5 | 4 | 3 | 4 | 2 | 2 | 2 | 3 | 8 |
| 12 | 2 | 1 | 0 | 19 | 2 | 1 | 1 | 5 | 2 | 4 | 1 | 1 | 1 | 1 | 3 | 4 | 3 | 3 | 1 | 3 | 2 | 3 | 4 |
| 13 | 4 | 1 | 18000 | 55 | 35 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 3 | 2 | 5 | 5 | 5 | 4 | 1 | 4 | 3 | 5 | 1 |
| 14 | 1 | 2 | 17000 | 29 | 1 | 2 | 3 | 4 | 2 | 4 | 2 | 2 | 3 | 1 | 4 | 3 | 4 | 4 | 1 | 1 | 2 | 2 | 0 |
| 15 | 3 | 1 | 18200 | 48 | 8 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | 4 | 5 | 5 | 1 |
| 16 | 2 | 1 | 15800 | 32 | 7 | 3 | 3 | 4 | 2 | 2 | 2 | 3 | 1 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 |
| 17 | 1 | 1 | 16600 | 48 | 14 | 3 | 3 | 3 | 2 | 4 | 1 | 2 | 2 | 2 | 4 | 5 | 4 | 4 | 1 | 2 | 5 | 3 | 1 |
| 18 | 1 | 2 | 13400 | 18 | 1 | 2 | 2 | 4 | 2 | 4 | 2 | 3 | 2 | 2 | 5 | 5 | 5 | 1 | 1 | 2 | 3 | 3 | 6 |
| 19 | 3 | 2 | 15000 | 28 | 2 | 4 | 4 | 2 | 3 | 2 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 4 | 4 | 3 |
| 20 | 3 | 2 | 17600 | 37 | 1 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 5 | 4 | 4 | 5 | 1 | 1 | 4 | 1 | 3 |
| 21 | 1 | 1 | 0 | 43 | 16 | 1 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 4 | 4 | 2 | 4 | 5 | 2 | 6 |
| 22 | 1 | 1 | 17400 | 39 | 6 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 4 | 3 | 5 | 3 | 2 | 1 | 1 | 5 | 5 |
| 23 | 1 | 1 | 18000 | 53 | 5 | 1 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 2 | 3 | 5 | 4 | 2 | 1 | 3 | 3 | 5 | 13 |
| 24 | 2 | 2 | 16000 | 34 | 9 | 1 | 3 | 4 | 1 | 5 | 1 | 2 | 1 | 1 | 3 | 4 | 4 | 3 | 2 | 1 | 3 | 3 | 9 |
| 25 | 3 | 2 | 17000 | 43 | 17 | 4 | 3 | 4 | 5 | 3 | 3 | 1 | 3 | 2 | 3 | 2 | 4 | 4 | 1 | 3 | 5 | 2 | 2 |
| 26 | 1 | 1 | 14000 | 21 | 1 | 4 | 4 | 2 | 2 | 3 | 4 | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 1 | 2 | 5 | 5 | 3 |
| 27 | 1 | 1 | 16200 | 50 | 28 | 3 | 2 | 3 | 3 | 4 | 2 | 1 | 1 | 2 | 5 | 5 | 5 | 4 | 1 | 2 | 2 | 4 | 8 |
| 28 | 1 | 2 | 12400 | 31 | 9 | 1 | 2 | 5 | 1 | 4 | 2 | 2 | 1 | 2 | 4 | 4 | 5 | 4 | 2 | 3 | 5 | 5 | 0 |
| 29 | 1 | 1 | 13600 | 31 | 12 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 1 | 2 | 1 | 3 | 5 | 4 | 6 |
| 30 | 2 | 2 | 16400 | 52 | 21 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 10 |
| 31 | 1 | 1 | 14400 | 54 | 12 | 3 | 5 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 4 | 4 | 2 | 4 | 4 | 2 | 99 |
| 32 | 3 | 2 | 12400 | 28 | 10 | 2 | 2 | 4 | 1 | 5 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 4 | 4 | 9 |
| 33 | 2 | 2 | 16600 | 50 | 23 | 4 | 4 | 3 | 4 | 3 | 4 | 2 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 4 | 5 | 5 |
| 34 | 2 | 2 | 16000 | 52 | 21 | 5 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 3 | 2 | 5 | 4 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 35 | 1 | 2 | 15000 | 40 | 21 | 1 | 1 | 3 | 4 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | | 6 |
| 36 | 2 | 1 | 11800 | 19 | 1 | 2 | 2 | 5 | 2 | 4 | 2 | 1 | 2 | 2 | 5 | 5 | 5 | 5 | 2 | 2 | 3 | 2 | | 3 |
| 37 | 2 | 1 | 17600 | 38 | 4 | 5 | 4 | 1 | 4 | 3 | 5 | 3 | 3 | 3 | 2 | 1 | 2 | 1 | 2 | 4 | 4 | 4 | | 8 |
| 38 | 2 | 1 | 18000 | 61 | 41 | 5 | 3 | 2 | 4 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 5 | 4 | | 3 |
| 39 | 1 | 2 | 15600 | 37 | 8 | 3 | 2 | 4 | 2 | 3 | 2 | 3 | 3 | 2 | 4 | 5 | 4 | 5 | 1 | 3 | 4 | 4 | | 8 |
| 40 | 2 | 1 | 13400 | 31 | 5 | 2 | 2 | 5 | 2 | 5 | 2 | 2 | 2 | 1 | 5 | 5 | 5 | 4 | 2 | 1 | 1 | 2 | | 5 |
| 41 | 2 | 2 | 15000 | 43 | 21 | 4 | 3 | 2 | 2 | 2 | 3 | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 4 | 2 | | 0 |
| 42 | 3 | 1 | 13600 | 23 | 3 | 1 | 2 | 5 | 3 | 5 | 1 | 1 | 2 | 1 | 4 | 4 | 4 | 5 | 1 | 3 | 2 | 2 | | 8 |
| 43 | 2 | 2 | 14000 | 27 | 5 | 1 | 1 | 4 | 1 | 4 | 1 | 1 | 1 | 2 | 4 | 5 | 4 | 4 | 2 | 1 | 2 | 1 | | 9 |
| 44 | 1 | 1 | 15000 | 28 | 7 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 3 | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 4 | 3 | | 9 |
| 45 | 1 | 1 | 13200 | 0 | 10 | 1 | 1 | 4 | 1 | 4 | 2 | 2 | 2 | 4 | 2 | 5 | 5 | 1 | 4 | 1 | 3 | 10 |
| 46 | 3 | 1 | 13400 | 18 | 1 | 4 | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 4 | 3 | 5 | 4 | 1 | 4 | 3 | 4 | | 3 |
| 47 | 1 | 2 | 20600 | 48 | 23 | 3 | 4 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 1 | 3 | 2 | 2 | 4 | 4 | 3 | | 8 |
| 48 | 1 | 2 | 13600 | 29 | 10 | 2 | 3 | 5 | 4 | 4 | 2 | 2 | 2 | 1 | 3 | 4 | 2 | 2 | 1 | 3 | 4 | 4 | 11 |
| 49 | 1 | 2 | 14600 | 42 | 10 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 5 | 5 | 5 | 5 | 2 | 1 | 4 | 4 | | 0 |
| 50 | 1 | 1 | 18200 | 53 | 12 | 4 | 5 | 2 | 5 | 1 | 4 | 5 | 3 | 4 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | | 1 |
| 51 | 1 | 1 | 15200 | 32 | 12 | 3 | 2 | 4 | 1 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 3 | 2 | | 1 |
| 52 | 1 | 2 | 13000 | 31 | 2 | 1 | 3 | 5 | 1 | 5 | 2 | 2 | 3 | 2 | 5 | 4 | 4 | 5 | 2 | 1 | 3 | 1 | | 8 |
| 53 | 1 | 1 | 19000 | 55 | 19 | 5 | 4 | 3 | 5 | 3 | 5 | 4 | 3 | 3 | 4 | 3 | 3 | 1 | 3 | 4 | 3 | | 0 |
| 54 | 3 | 2 | 14800 | 26 | 8 | 4 | 4 | 1 | 3 | 3 | 4 | 5 | 2 | 3 | 1 | 2 | 1 | 2 | 2 | 4 | 3 | 3 | | 2 |
| 55 | 1 | 2 | 17200 | 53 | 22 | 3 | 4 | 2 | 3 | 1 | 3 | 4 | 4 | 3 | 2 | 1 | 2 | 2 | 1 | 3 | 5 | 5 | | 0 |
| 56 | 1 | 1 | 15600 | 51 | 31 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 4 | 5 | 4 | 5 | 5 | 1 | 4 | 1 | 1 | | 8 |
| 57 | 1 | 1 | 15400 | 48 | 23 | 3 | 1 | 4 | 3 | 4 | 2 | 2 | 2 | 2 | 5 | 5 | 4 | 5 | 1 | 1 | 3 | 2 | | 6 |
| 58 | 1 | 2 | 13800 | 48 | 28 | 1 | 1 | 4 | 1 | 5 | 2 | 2 | 2 | 1 | 5 | 5 | 5 | 5 | 2 | 1 | 4 | 3 | | 4 |
| 59 | 2 | 2 | 15800 | 62 | 40 | 1 | 2 | 3 | 2 | 5 | 2 | 2 | 3 | 2 | 5 | 4 | 4 | 5 | 2 | 1 | 1 | 5 | | 7 |
| 60 | 2 | 1 | 17400 | 57 | 13 | 2 | 3 | 4 | 2 | 3 | 2 | 3 | 1 | 2 | 3 | 3 | 4 | 3 | 1 | 4 | 4 | 1 | | 4 |
| 61 | 1 | 2 | 17800 | 42 | 20 | 5 | 4 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 4 | 2 | 3 | 3 | 3 | | 2 |
| 62 | 1 | 1 | 14200 | 21 | 2 | 1 | 2 | 3 | 1 | 4 | 2 | 3 | 2 | 1 | 3 | 3 | 3 | 3 | 1 | 4 | 2 | 2 | | 0 |
| 63 | 3 | 2 | 12800 | 26 | 8 | 3 | 1 | 3 | 2 | 4 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 4 | 1 | 1 | | 4 |
| 64 | 1 | 2 | 13600 | 46 | 0 | 1 | 2 | 5 | 2 | 4 | 3 | 1 | 2 | 2 | 5 | 5 | 5 | 5 | 2 | 2 | 3 | 4 | | 5 |
| 65 | 1 | 2 | 21000 | 59 | 21 | 4 | 3 | 2 | 4 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 4 | 5 | 1 | | 4 |
| 66 | 4 | 2 | 14200 | 30 | 8 | 0 | 3 | 3 | 2 | 4 | 2 | 3 | 2 | 2 | 5 | 4 | 4 | 4 | 1 | 2 | 2 | 3 | | 2 |
| 67 | 1 | 1 | 14600 | 29 | 8 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 1 | 5 | 3 | 4 | 3 | 2 | 1 | 4 | 5 | 10 |
| 68 | 3 | 1 | 13800 | 45 | 9 | 2 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 3 | 4 | | 9 |
| 69 | 3 | 1 | 16000 | 53 | 30 | 3 | 2 | 5 | 3 | 2 | 2 | 1 | 2 | 2 | 4 | 5 | 3 | 4 | 2 | 2 | 1 | 4 | | 2 |
| 70 | 1 | 1 | 13800 | 47 | 22 | 2 | 3 | 4 | 2 | 5 | 2 | 3 | 4 | 2 | 4 | 3 | 5 | 4 | 1 | 2 | 4 | 4 | 11 |

At the top of each column is the SPSS name or label we have given to the variables in this survey.

## SPSS names

Variable and file names in SPSS have to meet certain specifications. Unlike earlier versions of SPSS, they can now be longer than eight characters and can begin with a capital letter. However,

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it is most probably preferable to keep the names short. Names must begin with an alphabetic character (A–Z). The remaining characters can be any letter, number, period, @ (at), $ (dollar) or _ (underscore). Blank spaces are not allowed and they cannot end with a period and, preferably, not with an underscore. In addition, certain words, known as *keywords*, cannot be used because they can only be interpreted as commands by SPSS. They include words such as **add**, **and**, **any**, **or**, and **to**. The SPSS names given to the variables in the Job Survey are presented in Table 2.2.

TABLE 2.2 The SPSS names of the Job Survey variables

| Variable name | SPSS name |
|---|---|
| Identification number | id |
| Ethnic group | ethnicgp |
| Gender | gender |
| Gross annual income | income |
| Age | age |
| Years worked | years |
| Organizational commitment | commit |
| Job-satisfaction scale | |
| Item 1 | satis1 |
| Item 2 | satis2 |
| Item 3 | satis3 |
| Item 4 | satis4 |
| Job-autonomy scale | |
| Item 1 | autonom1 |
| Item 2 | autonom2 |
| Item 3 | autonom3 |
| Item 4 | autonom4 |
| Job-routine scale | |
| Item 1 | routine1 |
| Item 2 | routine2 |
| Item 3 | routine3 |
| Item 4 | routine4 |

Attendance at meeting       **attend**
Rated skill         **skill**
Rated productivity       **prody**
Rated quality        **qual**
Absenteeism        **absence**

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