1.4 SPSS Windows

(PSY206) Data Management and Analysis

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Starting SPSS Statistics

At first, download and install the SPSS installer from the IBM SPSS website (license purchase required).

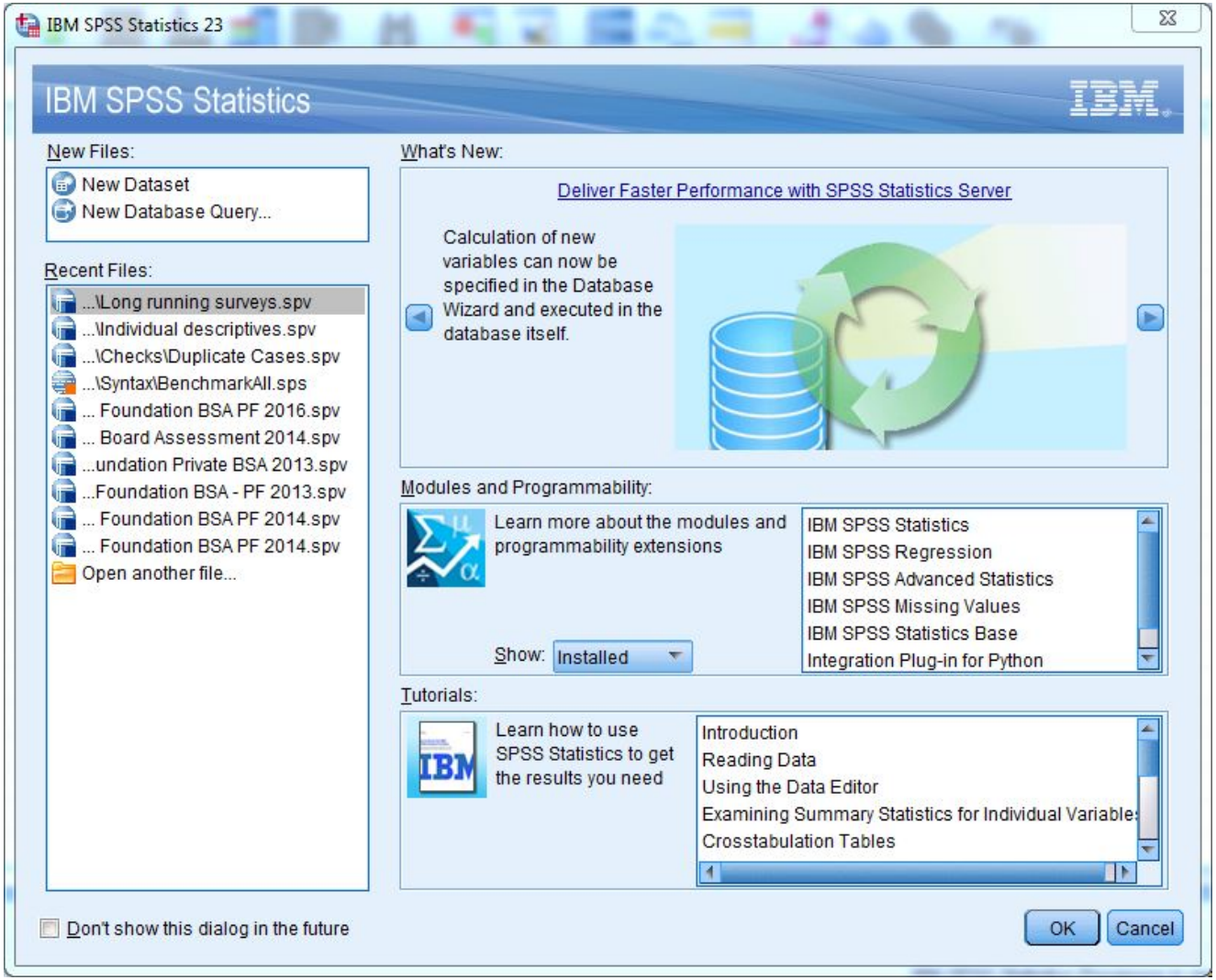
To launch **SPSS Statistics** on a Windows computer:

`Start Menu > All Programs > IBM SPSS Statistics > IBM SPSS Statistics 31`

When SPSS starts for the first time, you will see an **initial dialog box**. This dialog asks you whether you want to:

- Open a recently used file, or
- Open another file from your computer, or
- Create a new file from scratch.

Starting SPSS Statistics



In most cases, you will begin your SPSS session by opening the **data file** you want to work with (for example, survey data, experimental data, or secondary datasets).

Subsection 1

Three Main Windows in SPSS

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SPSS Statistics works through **three main windows**, plus a **menu bar** at the top.

These windows allow you to:

1. Enter and view your data,
2. View the statistical results,
3. Write or run commands.

Each of these windows is linked to a different SPSS file type.

Subsection 2

1. Data Editor Window (.sav files)

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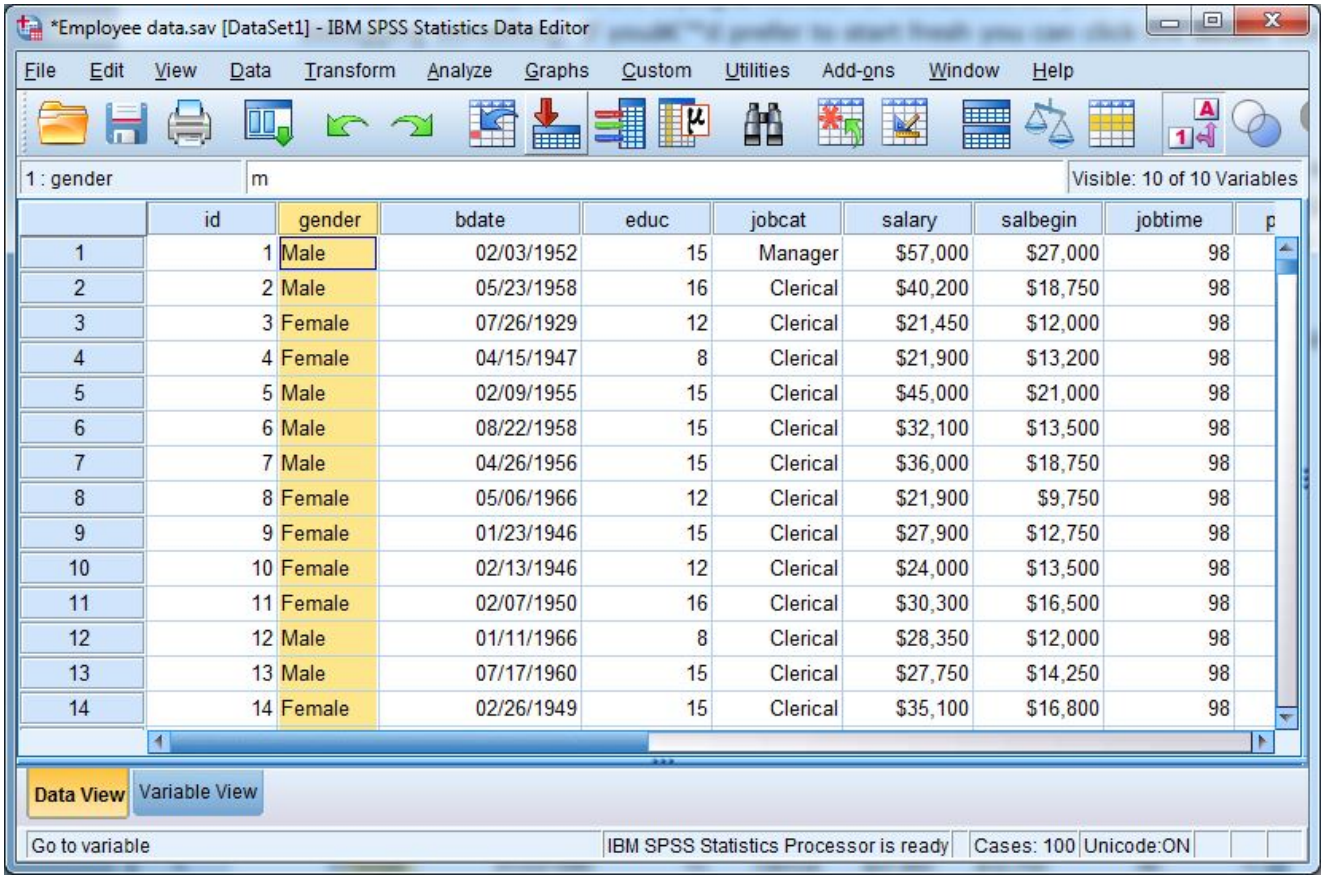
The **Data Editor** is where you enter, edit, and view your dataset.

The Data Editor gives you two views of your data set: a *Data View* and a *Variable View*, selected by clicking on the appropriate tab in the lower left corner of the window.

1. **Data View**
   - Looks like a spreadsheet.
   - **Rows** = individual cases (e.g., each respondent, household, or patient).
   - **Columns** = variables (e.g., age, gender, income, education).
   - You can type directly into cells or paste data from Excel.

1. Data Editor Window (.sav files)



	id	gender	bdate	educ	jobcat	salary	salbegin	jobtime	p
1	1	Male	02/03/1952	15	Manager	$57,000	$27,000	98	
2	2	Male	05/23/1958	16	Clerical	$40,200	$18,750	98	
3	3	Female	07/26/1929	12	Clerical	$21,450	$12,000	98	
4	4	Female	04/15/1947	8	Clerical	$21,900	$13,200	98	
5	5	Male	02/09/1955	15	Clerical	$45,000	$21,000	98	
6	6	Male	08/22/1958	15	Clerical	$32,100	$13,500	98	
7	7	Male	04/26/1956	15	Clerical	$36,000	$18,750	98	
8	8	Female	05/06/1966	12	Clerical	$21,900	$9,750	98	
9	9	Female	01/23/1946	15	Clerical	$27,900	$12,750	98	
10	10	Female	02/13/1946	12	Clerical	$24,000	$13,500	98	
11	11	Female	02/07/1950	16	Clerical	$30,300	$16,500	98	
12	12	Male	01/11/1966	8	Clerical	$28,350	$12,000	98	
13	13	Male	07/17/1960	15	Clerical	$27,750	$14,250	98	
14	14	Female	02/26/1949	15	Clerical	$35,100	$16,800	98	

Figure 1: SPSS Data View

Example: If you are analyzing 100 students' exam marks, each row represents one student, and each column represents a variable (such as `ID`, `Gender`, `Exam_Score`).

1. Data Editor Window (.sav files)

2. **Variable View**
   - Used to **define and manage variables**.
   - Columns in Variable View include:

     Name: short name of the variable (no spaces allowed).
     Type: numeric, string, date, etc.
     Label: descriptive label for the variable.
     Values: codes and labels (e.g., 1 = Male, 2 = Female).
     Measure: nominal, ordinal, or scale.
   - Important for ensuring your data is analyzed correctly.

1. Data Editor Window (.sav files)

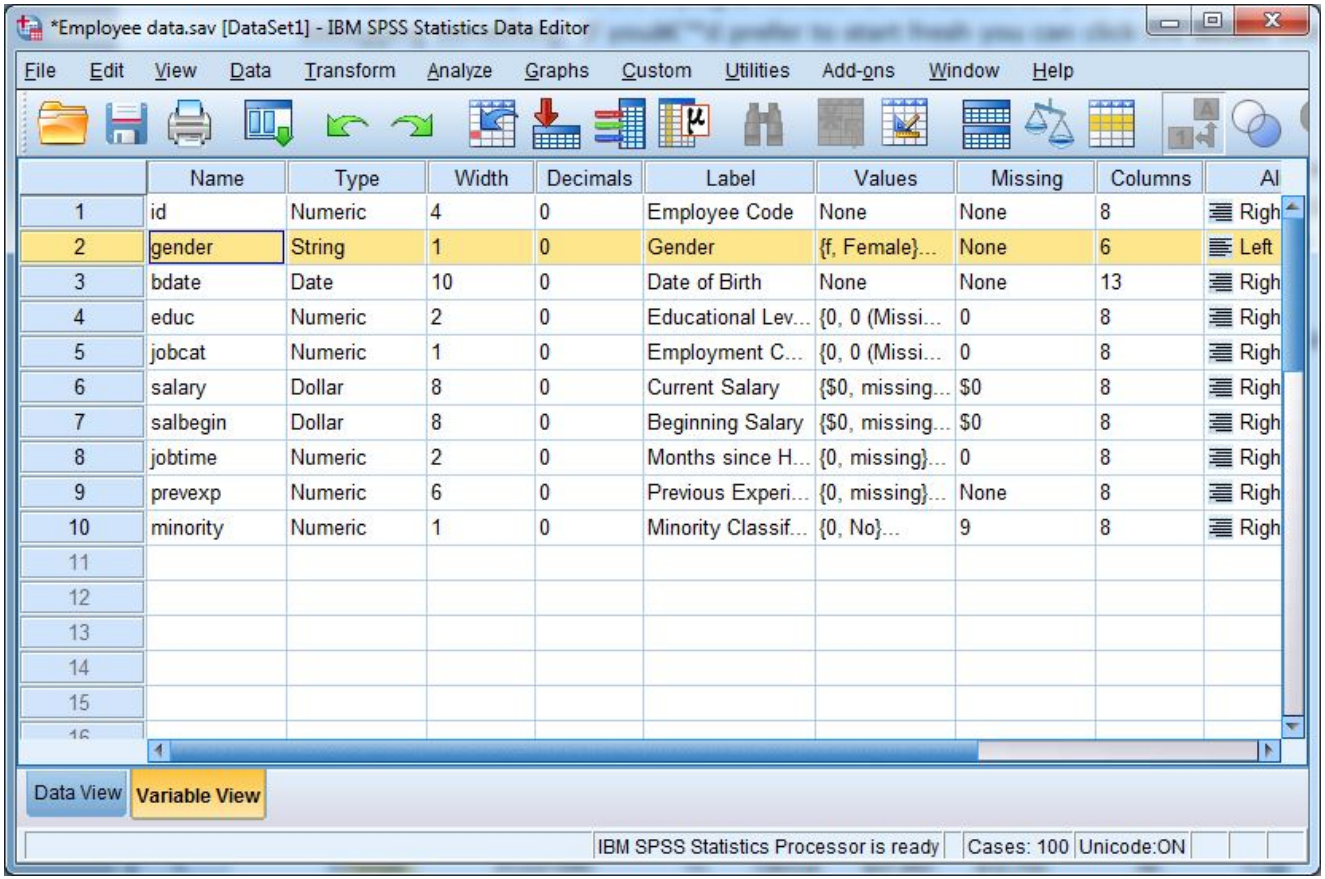


Figure 2: SPSS Variable View

Subsection 3

2. Output Viewer Window (.spv files)

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- This is where the results of your analysis appear.
- It includes **tables, charts, and statistical test results**.
- You can **copy** results into Word or PowerPoint for reports, or **export** them to PDF, Excel, or HTML.

2. Output Viewer Window (.spv files)

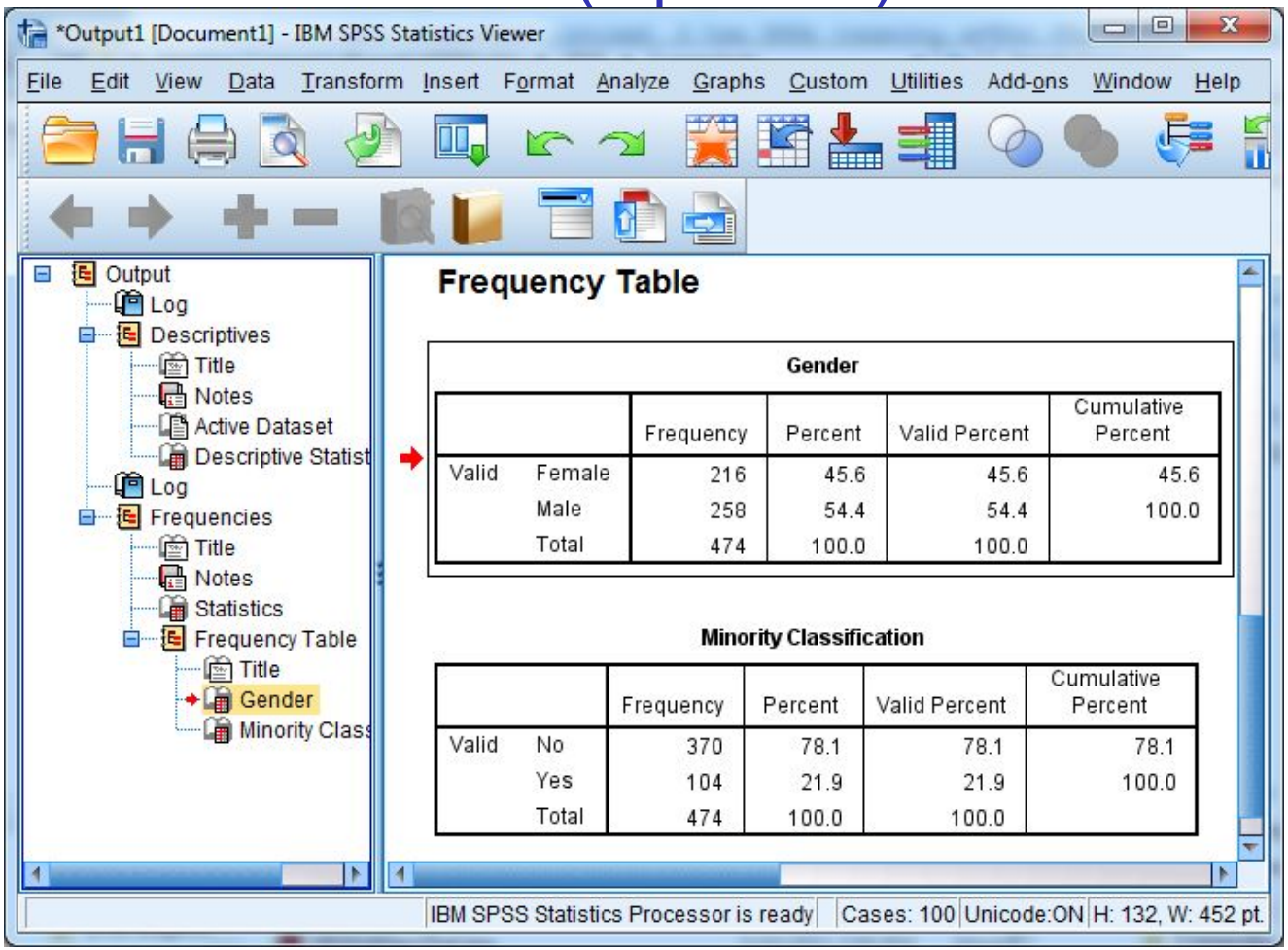

Figure 3: SPSS Output Viewer with frequency table

Example: After running a frequency analysis on the variable "Gender", a table will appear in the Output Viewer showing the number and percentage of males and females.

Subsection 4

3. Syntax Editor Window (.sps files)

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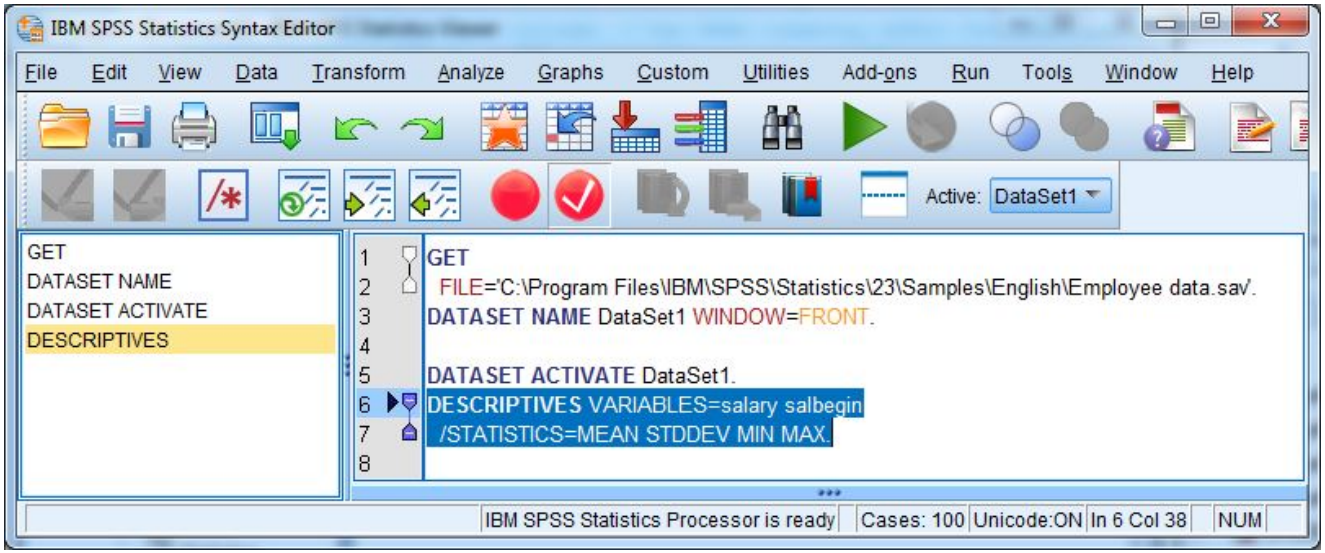
- The **Syntax Editor** is for writing commands in SPSS language.
- Commands are saved in files ending with `.sps`.
- Useful for repeating analyses without clicking menus again and again.
- Encouraged for advanced users because it ensures reproducibility.

3. Syntax Editor Window (.sps files)



Example command:

```
FREQUENCIES VARIABLES=Gender.
```

This generates the same frequency table as the point-and-click method.

Other Windows

- **Chart Editor**: lets you modify graphs (e.g., change colors, add titles, edit axes).
- **Pivot Table Editor**: allows you to reformat output tables (change fonts, merge cells, add totals).

These editors are powerful tools for preparing results for reports or publications.

Advantages of SPSS's Window System

- Clear separation of **data, metadata, and results** helps you stay organized.
- Very **beginner-friendly** because of its graphical interface.
- Offers **flexibility**:
  - *Point-and-click menus* for beginners,
  - *Syntax commands* for advanced users and reproducibility.

File Types in SPSS

Extension	File Type	Contents
.sav	Data File	Contains data + variable definitions
.sps	Syntax File	Stores analysis commands/scripts
.spv	Output File	Stores results of statistical analyses

Note: .sav files are the most commonly used. If you only save your output (.spv), you won't be able to re-run your analysis later without the data file.

Example Exercise

Question: Match each SPSS window with its main purpose:

1. Data entry and editing $\rightarrow$?
2. Variable definition $\rightarrow$?
3. Results display $\rightarrow$?

Answer:

1. Data Editor: Data View.
2. Data Editor: Variable View.
3. Output Viewer.

Summary

- The **three main windows** are:
  1. **Data Editor** (Data View + Variable View),
  2. **Output Viewer**,
  3. **Syntax Editor**.
- Additional editors help with customizing charts and tables.
- The separation of data, syntax, and output makes SPSS **easy to learn and reliable for research**.