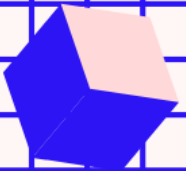
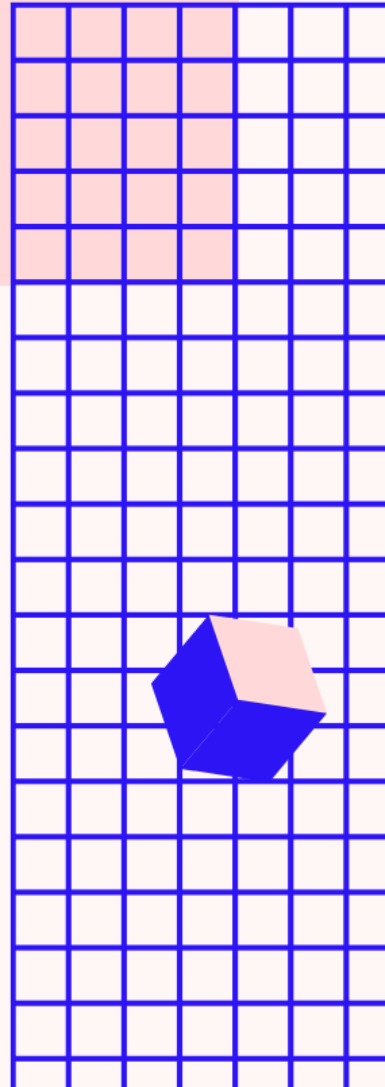
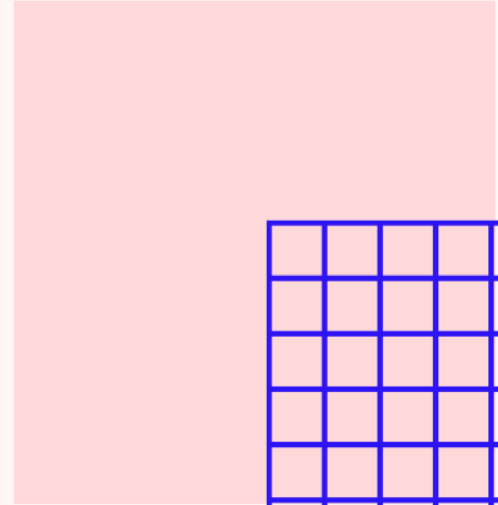


STATISTICAL PACKAGE FOR THE  
SOCIAL SCIENCES

**SPSS**



# SPSS is software for editing and analyzing all sorts of data.

The screenshot shows the IBM SPSS Statistics interface with the file '\*employees.sav [DataSet6]'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Direct Marketing, Graphs, Utilities, Add-ons, Window, and Help. The toolbar contains icons for saving, opening, and other functions. The main data view displays a table with the following data:

	resp_id	gender	first_name	last_name	date_of_birth	education_type	€
1	372466	0		TAYLOR	24-Sep-1950	1	
2	409437	0	DOROTHY	ANDERSON	.	4	
3	659919	.	JAMES	HARRIS	17-Nov-1954	5	
4	966895	.	MARY		24-Apr-1957	3	
5	671607	1	RICHARD	CLARK	31-Aug-1959	5	

# Data View is where we inspect our actual data

1: educ Visible: 23 of 23 Variables

	last_name	gender	dob	educ	marit
1	Garcia	1	03-Oct-1993	.	2
2	Carter	1	31-Oct-1996	4	1
3	Williams	0	13-Dec-1985	5	2
4	Baker	0	10-Jun-1988	1	2
5	Hernandez	4	23-Dec-1995	3	2
6	Mitchell	1	19-Apr-1996	6	2
7	Carter	0	24-Apr-1989	2	2
8	Taylor	1	30-Nov-1983	4	2

Data View Variable View 1

- Switch tabs
- Columns of cells are variables
- Rows of cells are called cases.
- Values refer to cell contents.

# Variable View is where we see additional information about our data

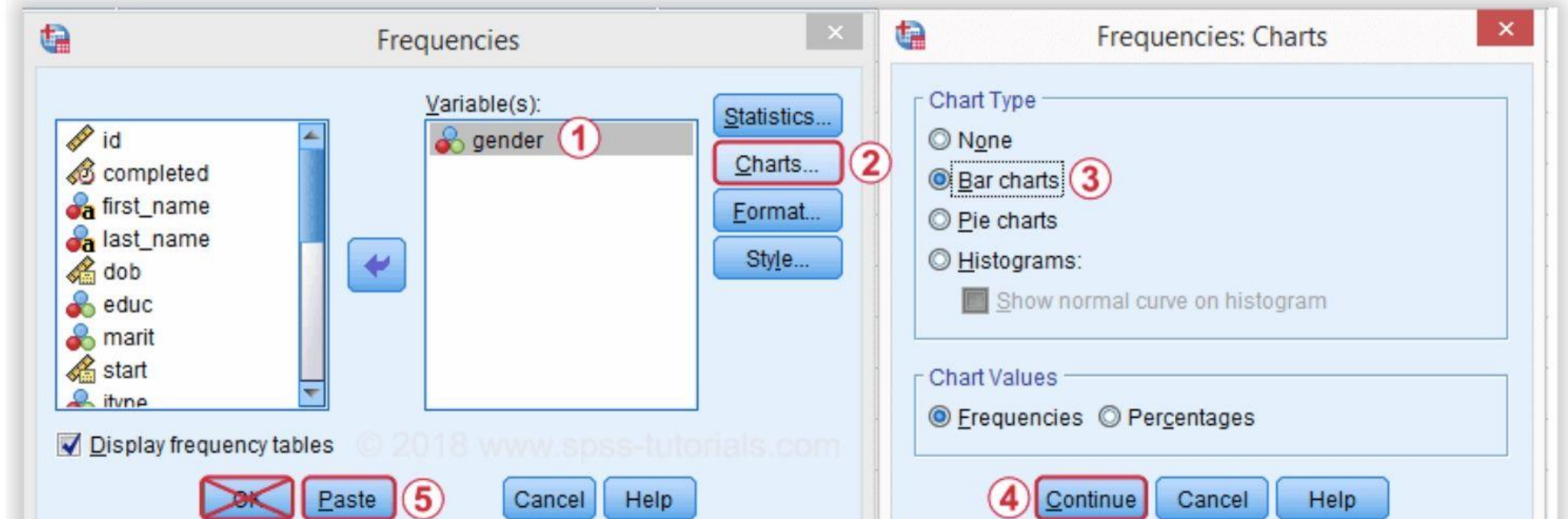
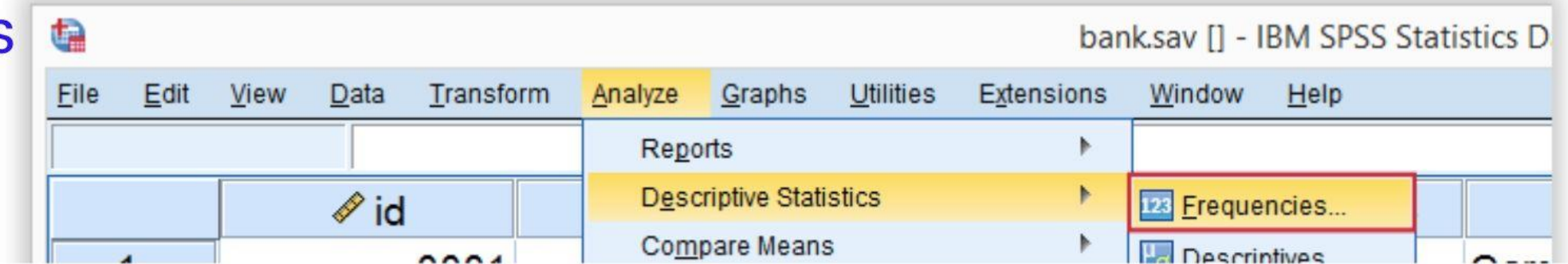
	3 Name	Type		4 Label	5 Values
1	resp_id	Numeric	...	Unique respondent identifier	None
2	gender	Numeric	...		{0, Female}...
3	first_name	String	...		None
4	last_name	String	...		None
5	date_of_birth	Date	...		None
2	education_ty...	Numeric	...	Primary type of education followed by respondent	{1, Law}...
7	education_y...	Numeric	...	Years of full time education taken after age 16	{1, 0-2 years...
8	job_type	Numeric	...	Type of job currently held in company	{1, Administr...
9	experience	Numeric	...	Years of full time working experience	None

- Switch tabs
- Variables are shown as rows of cells
- Variable name
- Variable label, describes each variable
- Value labels: descriptions of the meaning of one, many or all values that a variable may contain.

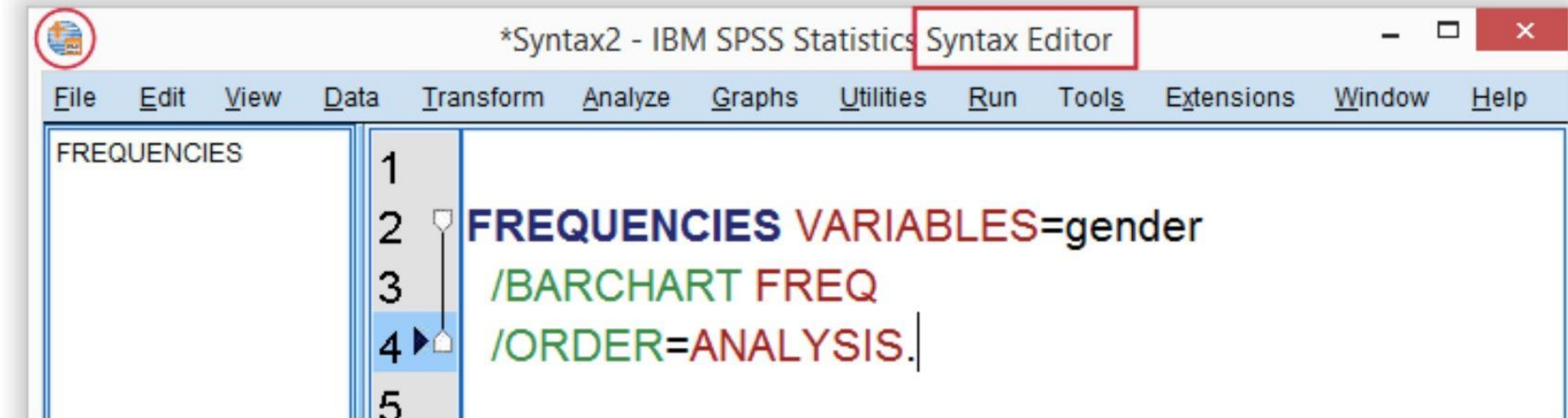


# SYNTAX VIEW

% OF MALE AND FEMALE  
RESPONDENTS



# SYNTAX VIEW



# SYNTAX VIEW

IBM SPSS Statistics Syntax Editor

File Edit View Data Transform Analyze Graphs Utilities Run Tools Extensions Window Help

\* Encoding: UTF-8.  
frequencies

1  
2 ► **FREQUENCIES VARIABLES=gender**  
3 **/BARCHART FREQ**  
4 **/ORDER=ANALYSIS.**

**2. RUN SELECTION**

**1. SELECT COMMAND(S)**

\*Output2 [Document2] - IBM SPSS Statistics View

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

Output

- Output
  - Frequencies
    - Title
    - Notes
    - Active Dataset
    - Statistics
    - gender
    - Bar Chart
  - Frequencies
    - Title

**gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	268	57.8	57.8	57.8
	male	196	42.2	42.2	100.0
	Total	464	100.0	100.0	

# OUTPUT VIEW

The screenshot shows the IBM SPSS Output View window. The title bar reads '\*Output10 [Document10] - IBM SPSS S'. The menu bar includes File, Edit, View, Data, Transform, Insert, Format, Analyze, Graphs, Utilities, Extensions, Window, and Help. The toolbar contains various icons for file operations and analysis. The Output Outline on the left shows a tree structure under 'Output' with 'Frequencies' expanded to show 'Title', 'Notes', 'educ Highest completed educ', 'Statistics', 'educ Highest completed e', and 'Bar Chart'. A red arrow points from the 'educ Highest completed e' item to the Output Items table. The Output Items table on the right is titled 'educ Highest completed education level' and contains the following data:

		Frequency	Percent	Valid Pe
Valid	1 Middle school or lower	4	.9	
	2 High school	23	5.0	
	3 Undergraduate	83	17.9	
	4 Bachelor's	149	32.1	
	5 Master's			
	6 PhD or higher			
	7 No answer	5	1.1	

## OUTPUT OUTLINE

For navigation

## OUTPUT ITEMS

Exported to WORD or Excel



# Variable types

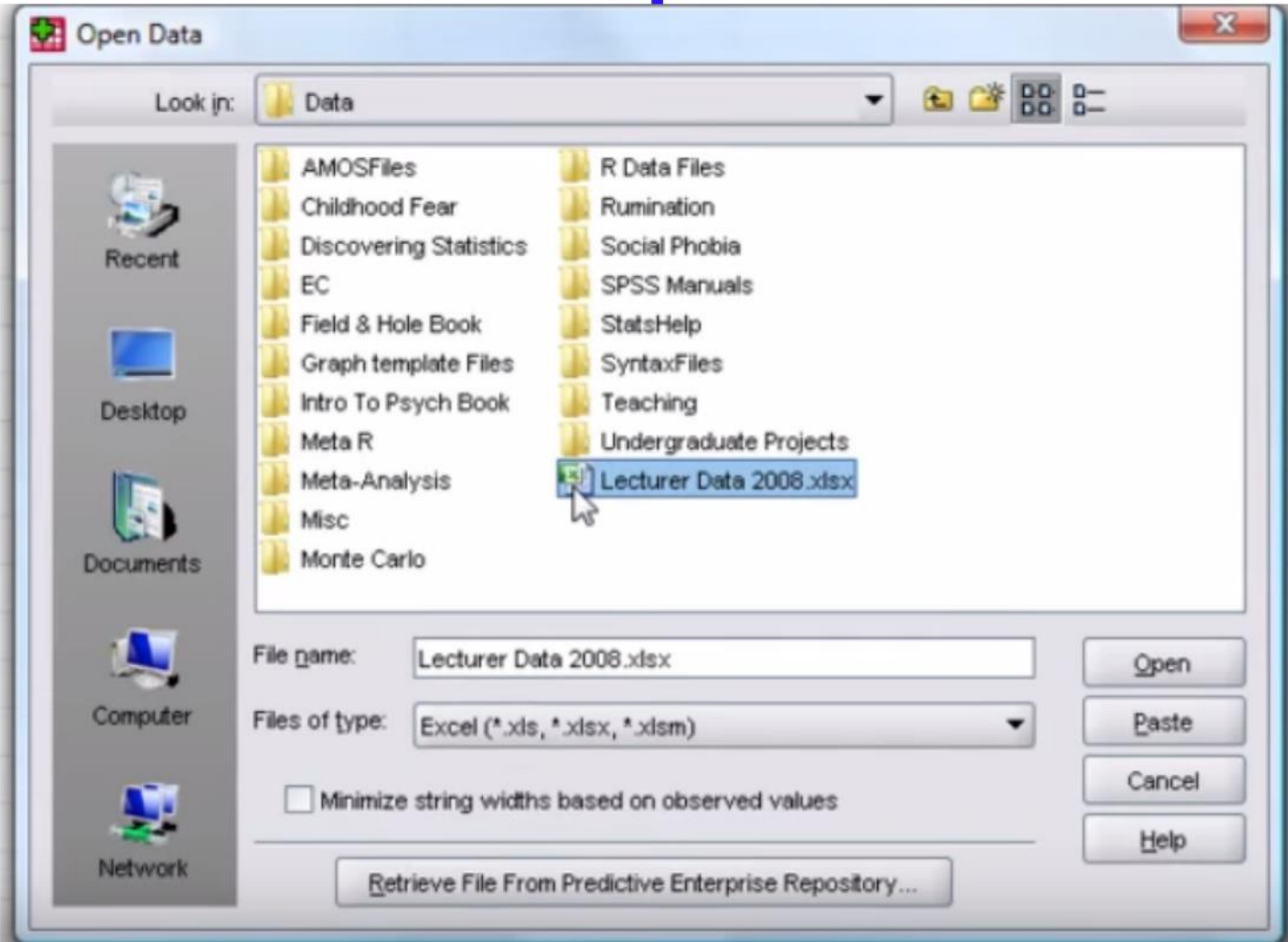
## NUMERIC VARIABLES

Contain only numbers

## STRING VARIABLES

- May contain letters, numbers and other characters
- Cannot do calculations

# Import data from Excel

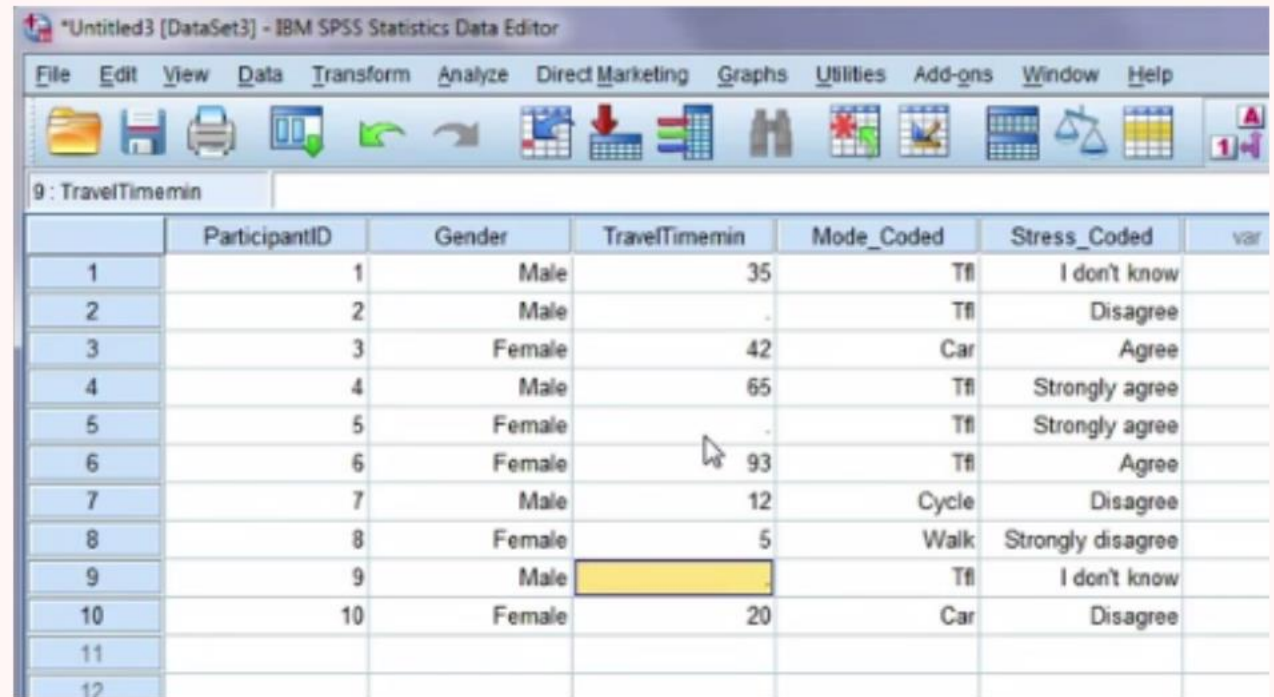


- File -> Open -> Data

# Missing Values

System missing values are values that are completely absent from the data.

User missing values are values that are invisible while analyzing or editing data.



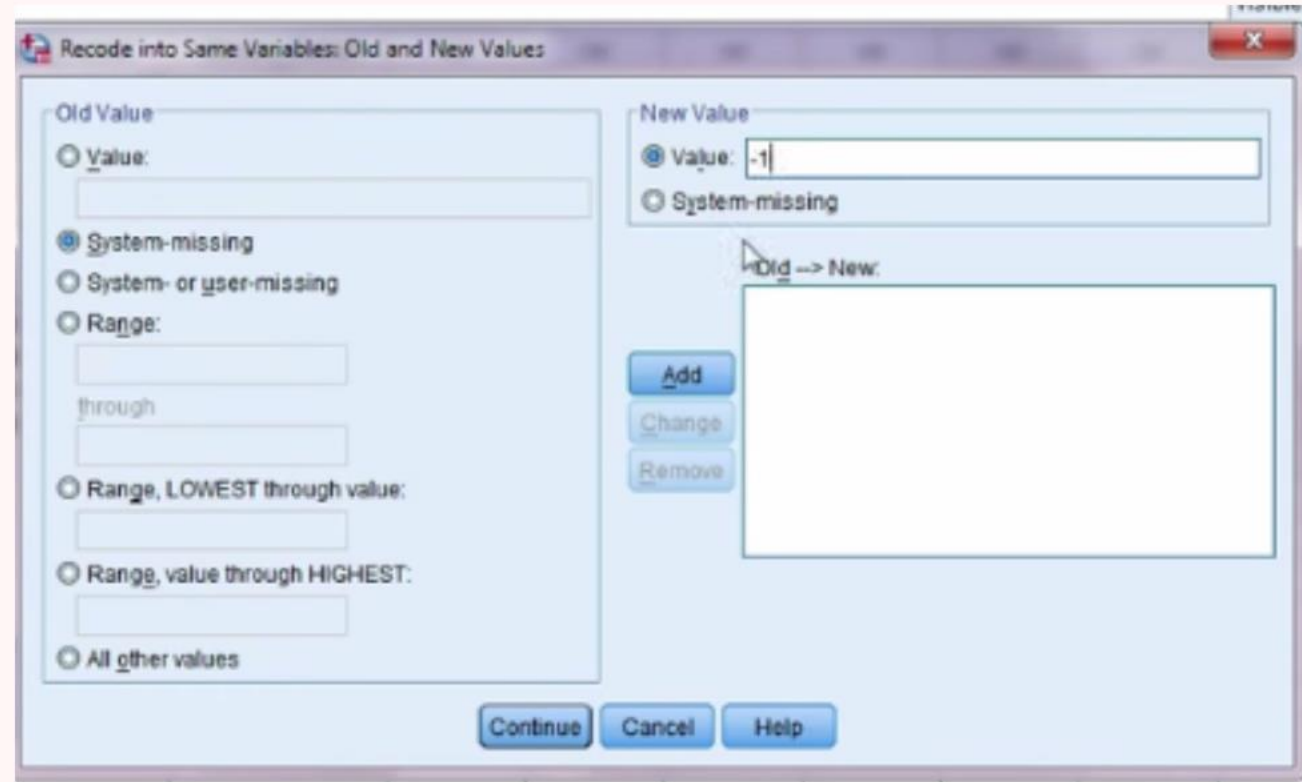
The screenshot shows the IBM SPSS Statistics Data Editor interface. The title bar reads '\*Untitled3 [DataSet3] - IBM SPSS Statistics Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Direct Marketing, Graphs, Utilities, Add-ons, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The main window displays a data grid with the following columns: ParticipantID, Gender, TravelTime, Mode\_Coded, Stress\_Coded, and var. The data is as follows:

	ParticipantID	Gender	TravelTime	Mode_Coded	Stress_Coded	var
1	1	Male	35	Tfi	I don't know	
2	2	Male	.	Tfi	Disagree	
3	3	Female	42	Car	Agree	
4	4	Male	65	Tfi	Strongly agree	
5	5	Female	.	Tfi	Strongly agree	
6	6	Female	93	Tfi	Agree	
7	7	Male	12	Cycle	Disagree	
8	8	Female	5	Walk	Strongly disagree	
9	9	Male	.	Tfi	I don't know	
10	10	Female	20	Car	Disagree	
11						
12						

- Click on Transform
- Recode into same variables
- Select the variable you want to recode

# Missing Values

- System Missing
- Enter new value ( -1)
- Add -> Continue
- OK



The image shows the 'Recode into Same Variables: Old and New Values' dialog box in SPSS. The 'Old Value' section has 'System-missing' selected. The 'New Value' section has 'Value: -1' entered in the text box. The 'Add' button is highlighted. The 'Continue', 'Cancel', and 'Help' buttons are at the bottom.

Recode into Same Variables: Old and New Values

Old Value

Value:

System-missing

System- or user-missing

Range:

through

Range, LOWEST through value:

Range, value through HIGHEST:

All other values

New Value

Value: -1

System-missing

Did -> New:

Add

Change

Remove

Continue Cancel Help



# Missing Values

- Variable view
- Discrete Missing Value(-1)

The screenshot shows the IBM SPSS Statistics Data Editor interface. The main window displays the Variable View for a dataset named 'Untitled3 [DataSet3]'. The variable list includes:

Number	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	ParticipantID	Numeric	12	0	Participant ID	None	None	12	Right	Nominal	Input
2	Gender	Numeric	12	0	Gender	{0, Male}...	None	12	Right	Nominal	Input
3	TravelTimein	Numeric	12	0	TravelTime (min)	None	None	12	Right	Scale	Input
4	Mode_Coded	Numeric	12	0	Main mode of transport	{1, T}...	None	12	Right	Nominal	Input
5	Stress_Coded	Numeric	12	0	My commute causes me to feel stressed	{1, Strongly ...	None	12	Right	Ordinal	Input

The 'Missing Values' dialog box is open, showing the 'Discrete missing values' option selected. The first discrete missing value is set to -1. The 'Range plus one optional discrete missing value' option is also visible, with fields for 'Low', 'High', and 'Discrete value'. The 'OK' button is highlighted.



# References

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**Questions?**