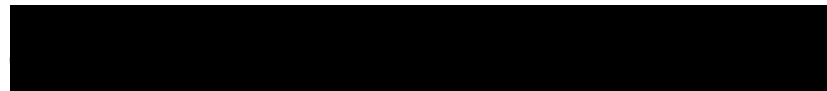
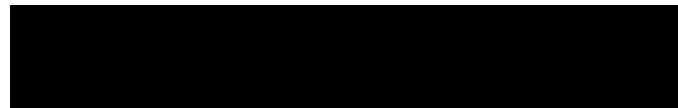
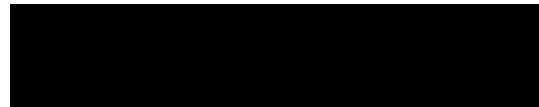


# An Introduction to SPSS

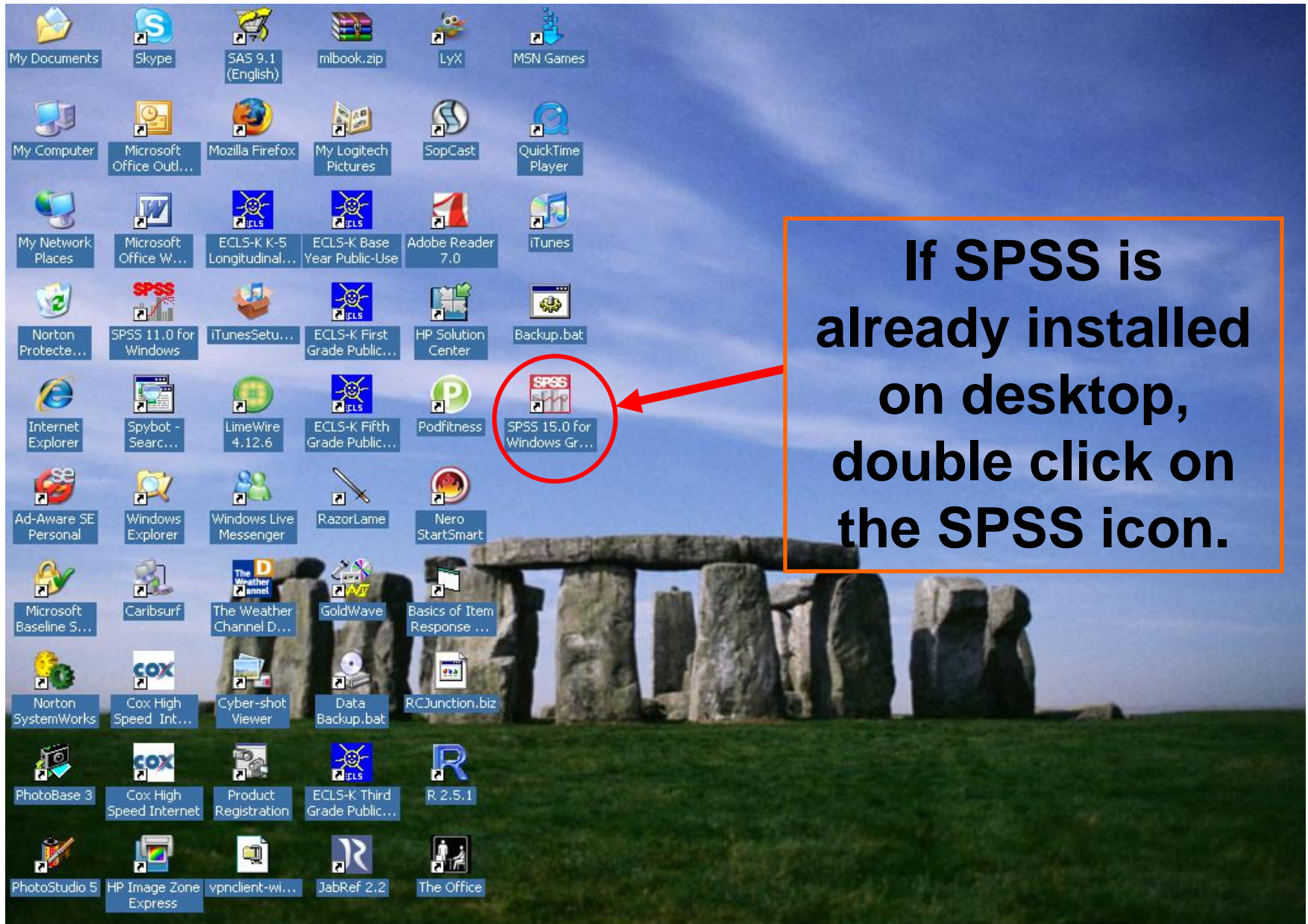
Workshop Session



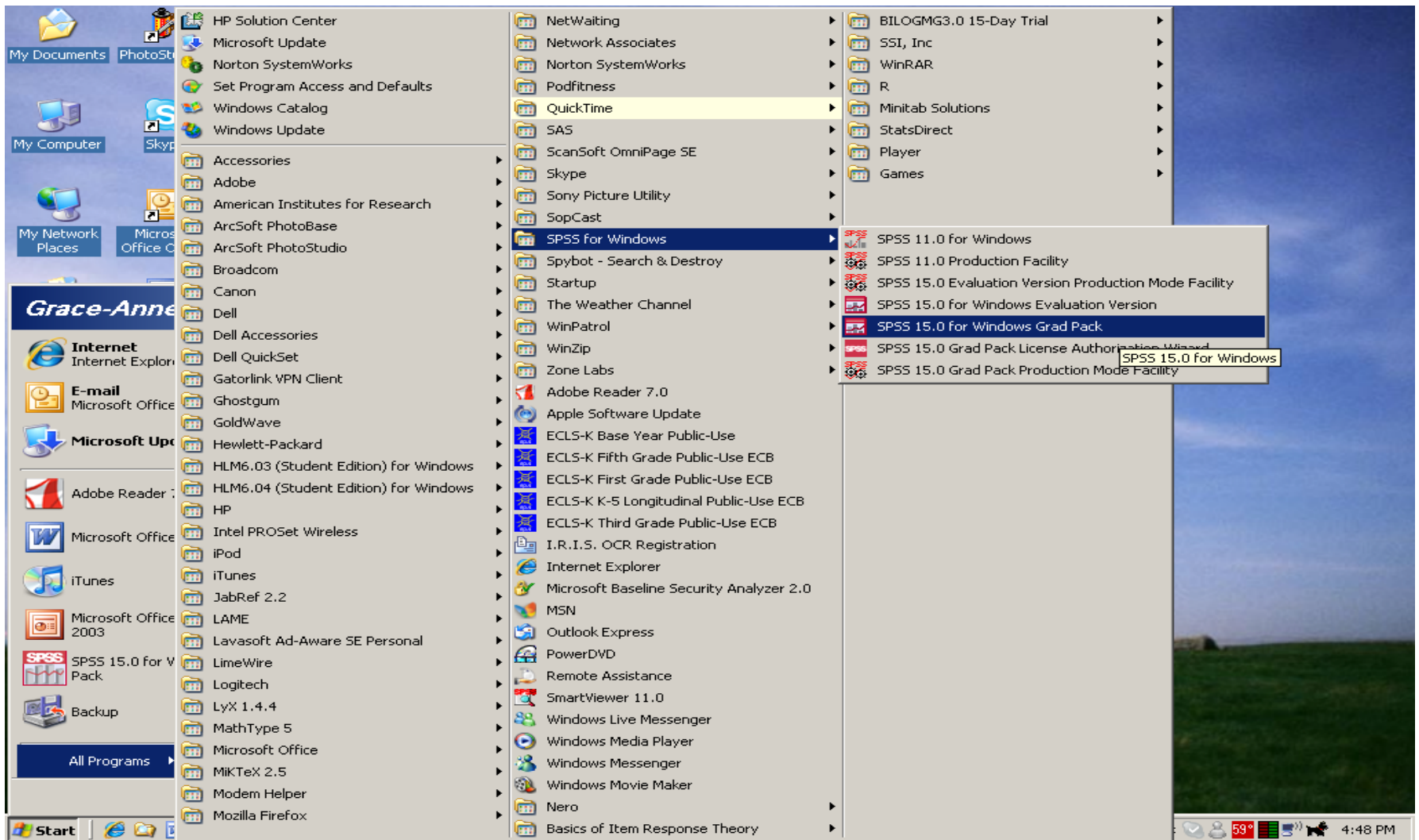
# Topics to be Covered

- Starting and Entering SPSS
- Main Features of SPSS
- Entering and Saving Data in SPSS
- Importing Data from Excel
- Simple Data Manipulations
- Performing Descriptive Statistics

# Session 1: Starting and Entering SPSS



**If SPSS is already installed on desktop, double click on the SPSS icon.**



- **Open SPSS Via the Start Menu**  
Start > All Programs > SPSS for Windows > SPSS 15.0 for Windows Graduate Pack
- **Your SPSS Version Number may be different.**

# Entering SPSS

SPSS 15.0 for Windows Graduate Student Version

What would you like to do?

- Run the tutorial
- Type in data
- Run an existing query
- Create new query using Database Wizard
- Open an existing data source
- Open another type of file

More Files...

C:\Documents and Settings\Grace-Anne Jackman

C:\Documents and Settings\Grace-Anne Jackman

C:\Documents and Settings\Grace-Anne Jackman

C:\Documents and Settings\Grace-Anne Jackman

More Files...

C:\Documents and Settings\Grace-Anne Jackman

C:\Documents and Settings\Grace-Anne Jackman

C:\Documents and Settings\Grace-Anne Jackman

C:\Documents and Settings\Grace-Anne Jackman

Don't show this dialog in the future

OK Cancel

This Default Window will open

Select Cancel

Session 2:

Overview of Main SPSS  
Features

# Four Main Bars

1. The Title Bar
2. The Menu Bar
3. The Tool Bar
4. The Status Bar

TITLE BAR

MENU BAR

TOOL BAR



1 :

Visible: 0 of 0 Variables

	var	var	var	var	var	var	var	var	var	var	var	var	var	
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														

STATUS BAR

## TITLE BAR



## MENU BAR



- **Located below the Title Bar**
- **Lists a set of the actions/procedures that can be performed**
- **Uses point and click format to choose from the Pull-Down Menus selection of actions**

## MENU BAR

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

### Action

### Common Uses

#### FILE

- √ Open a new/existing file
- √ Open a new file
- √ Import data into SPSS from an existing text file, Excel spreadsheet or Database
- √ Save the data file
- √ Exit SPSS for Windows

#### EDIT

- √ To make changes to the data - Copy, Paste, Insert Variables, Insert Cases etc.

#### VIEW

- √ Hide or show Status bar or Toolbar
- √ Change font or point size of the data
- √ Hide or show gridlines
- √ Switch between Data View and Variable View

## MENU BAR

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

### Action

### Common Uses

#### DATA

- √ To manipulate existing SPSS data files - Define variables, Sort cases, Merge files, Split files, Select cases, Weight cases etc.

#### TRANSFORM

- √ Perform computations on variables - Create new variables from existing ones. Recode old variables etc.

#### ANALYZE

- √ Contains extensive list of statistical analysis that can be conducted: Ex: Descriptive statistics, ANOVA, Regression etc.

#### GRAPHS

- √ To obtain high resolution plots and graphs, which can be edited in Chart Editor window.

## MENU BAR

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

### Action

### Common Uses

#### UTILITIES

- ✓ To move to any open window or to see which window is active. The window with a check mark is the active one.

#### ADD-ONS

- ✓ Contains a number of Additional Advanced SPSS Products that can be purchased separately and used in conjunction with the base product. Ex: SPSS Conjoint, SPSS Tables, SPSS Maps etc.

#### WINDOW

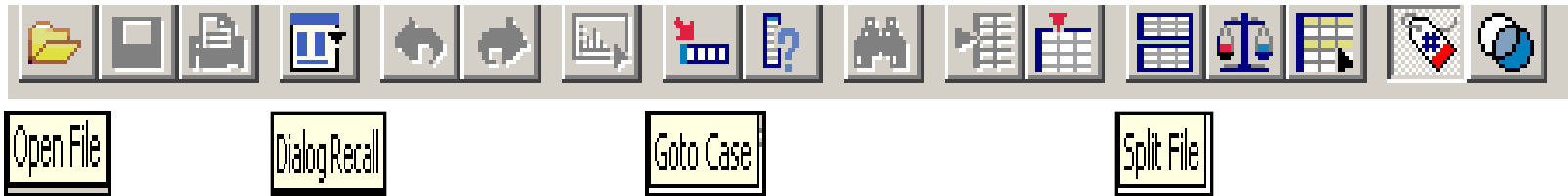
- ✓ To move to any open window or to see which window is active. The window with a check mark is the active one.

#### HELP

- ✓ To get help on topics in SPSS via a Predefined List of Topics, Tutorial, Statistics Coach, Syntax Guide etc.

## TOOL BAR

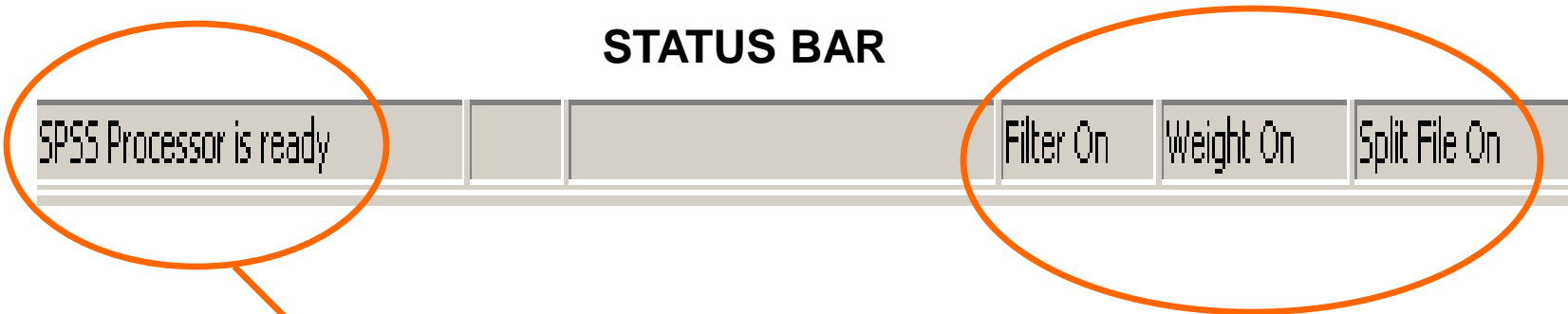
3



- Located below the Menu Bar
- Contains a number of buttons which act as shortcuts
- Roll cursor over each button to see its function

## STATUS BAR

4



Shows status of  
procedures being run

Indicates whether data are  
being filtered, weighted or  
subdivided

# Three Primary Windows

## 1. The Data Editor Window

- Data Viewer
- Variable Viewer

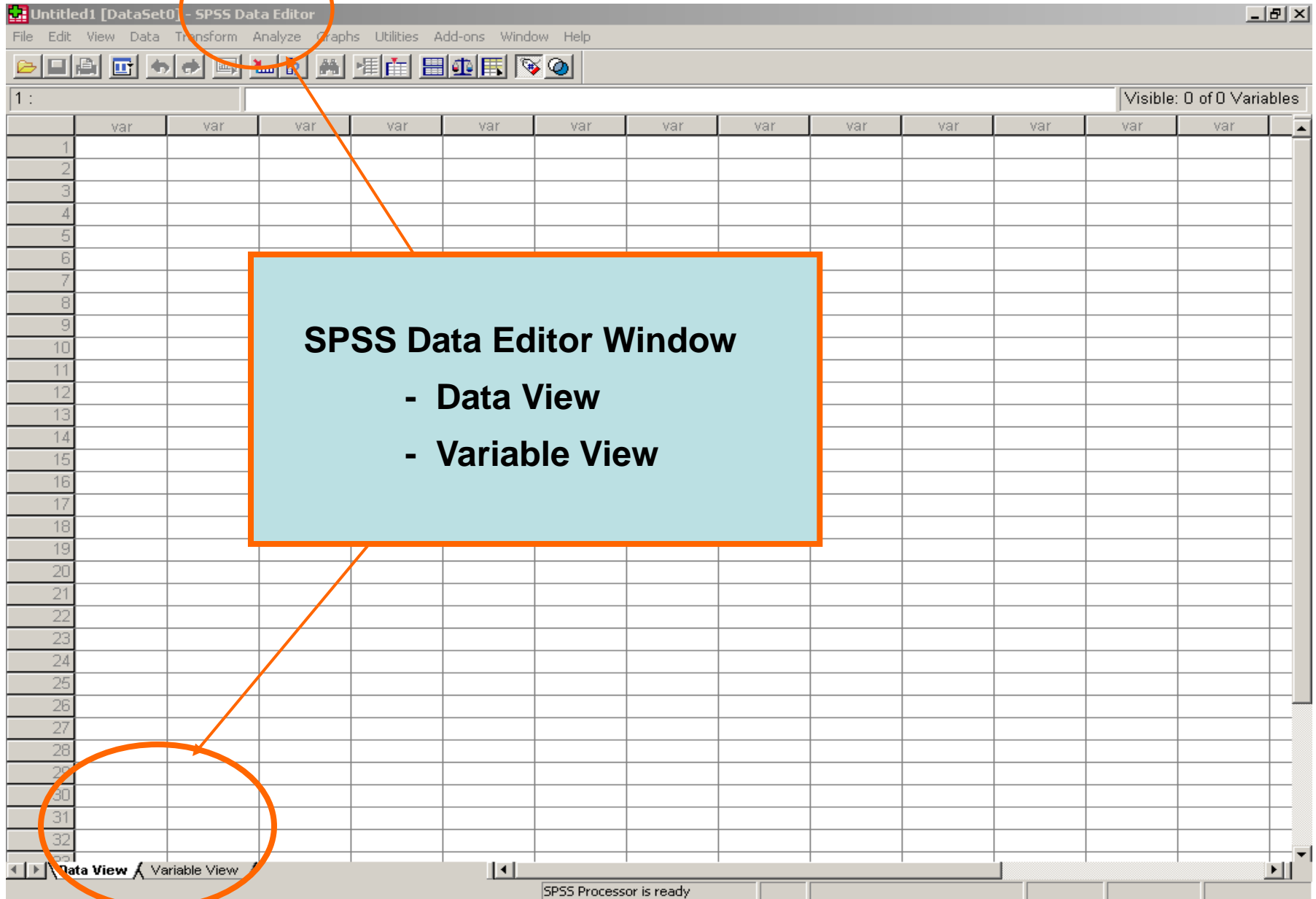
## 2. The Output Viewer Window

- Contains all the results from performing analyses, e.g. syntax, tables, charts etc.

## 3. The Syntax Editor Window

- Used to write SPSS programs to run procedures
- Used as an alternative to running analyses via the commands in the Menu Bar

# The Data Editor Window



# Output Viewer Window

Output1 - SPSS Viewer

File Edit View Data Transform Insert Format Analyze Graphs Utilities Add-ons Window Help

Output

- Log
- Frequencies
- Title
- Notes
- Gender
- Bar Chart

```
FREQUENCIES  
VARIABLES=gender  
/BARCHART FREQ  
/ORDER= ANALYSIS .
```

**Syntax**

**Frequencies**

Gender

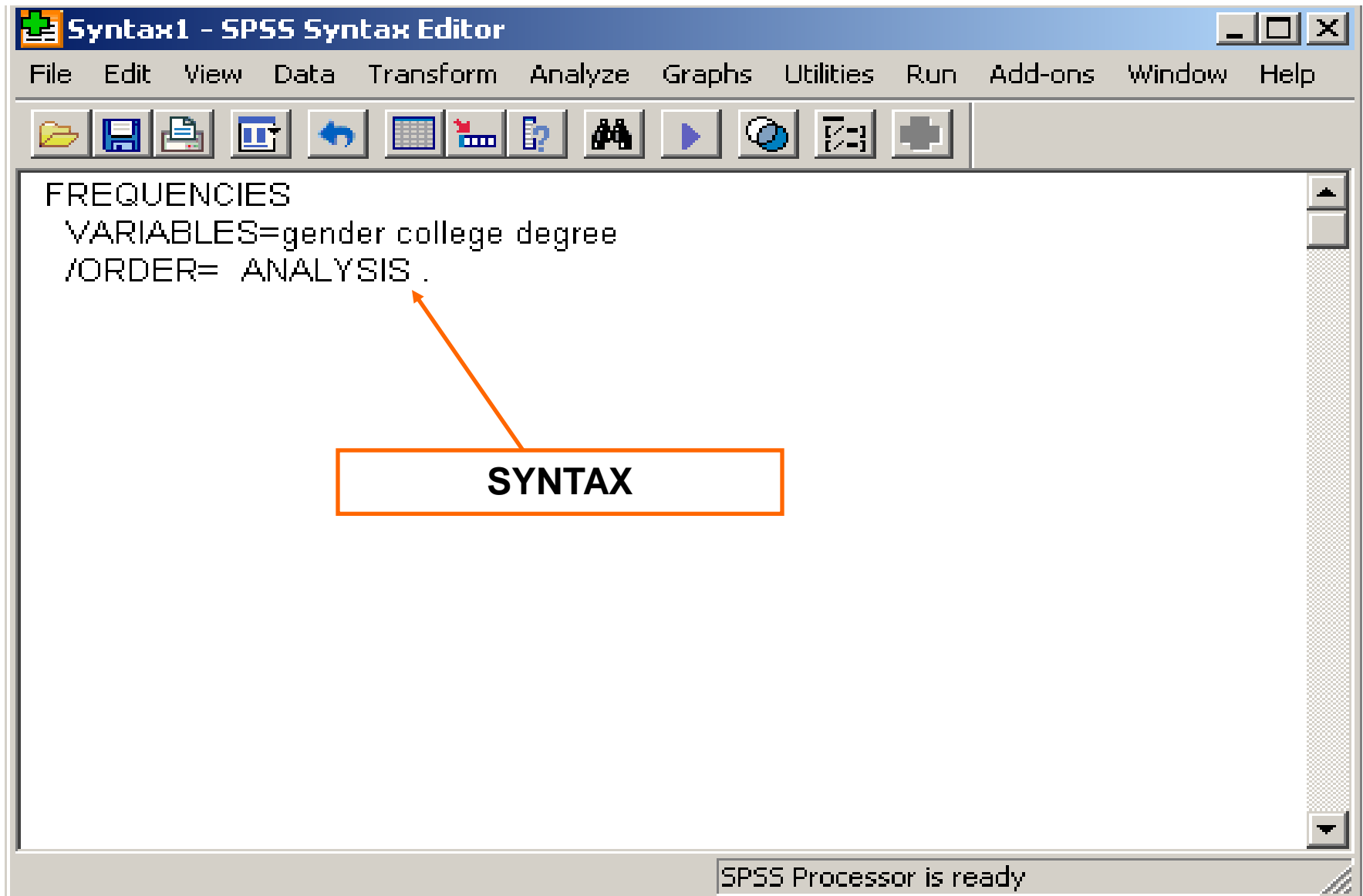
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Female	469	42.6	42.6	42.6
Male	631	57.4	57.4	100.0
Total	1100	100.0	100.0	

**Frequency Table**

**Chart**

SPSS Processor is ready

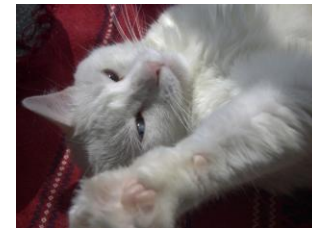
# Syntax Editor Window



# Session 3: Entering Data in SPSS



# Pet Survey



*We are very interested in learning more about the pets of students, faculty, and staff at the University of Florida! Please take a few minutes to fill out the survey below. If you do not have a pet, please feel free to imagine a “fantasy” pet and answer the questions with fantasy data.*

1. Please circle your average level of happiness on a scale of 1 (extremely unhappy) to 10 (extremely happy)

(extremely unhappy) 1    2    3    4    5    6    7    8    9    10 (extremely happy)

2. How many pets do you own? \_\_\_\_\_ pets

3. What is the name of the pet you have owned the longest (or the name of your fantasy pet)? \_\_\_\_\_

*The next set of questions will apply to the pet you have owned for the longest amount of time (or your fantasy pet).*

4. How old is this pet? \_\_\_\_\_ years



# Pet Survey

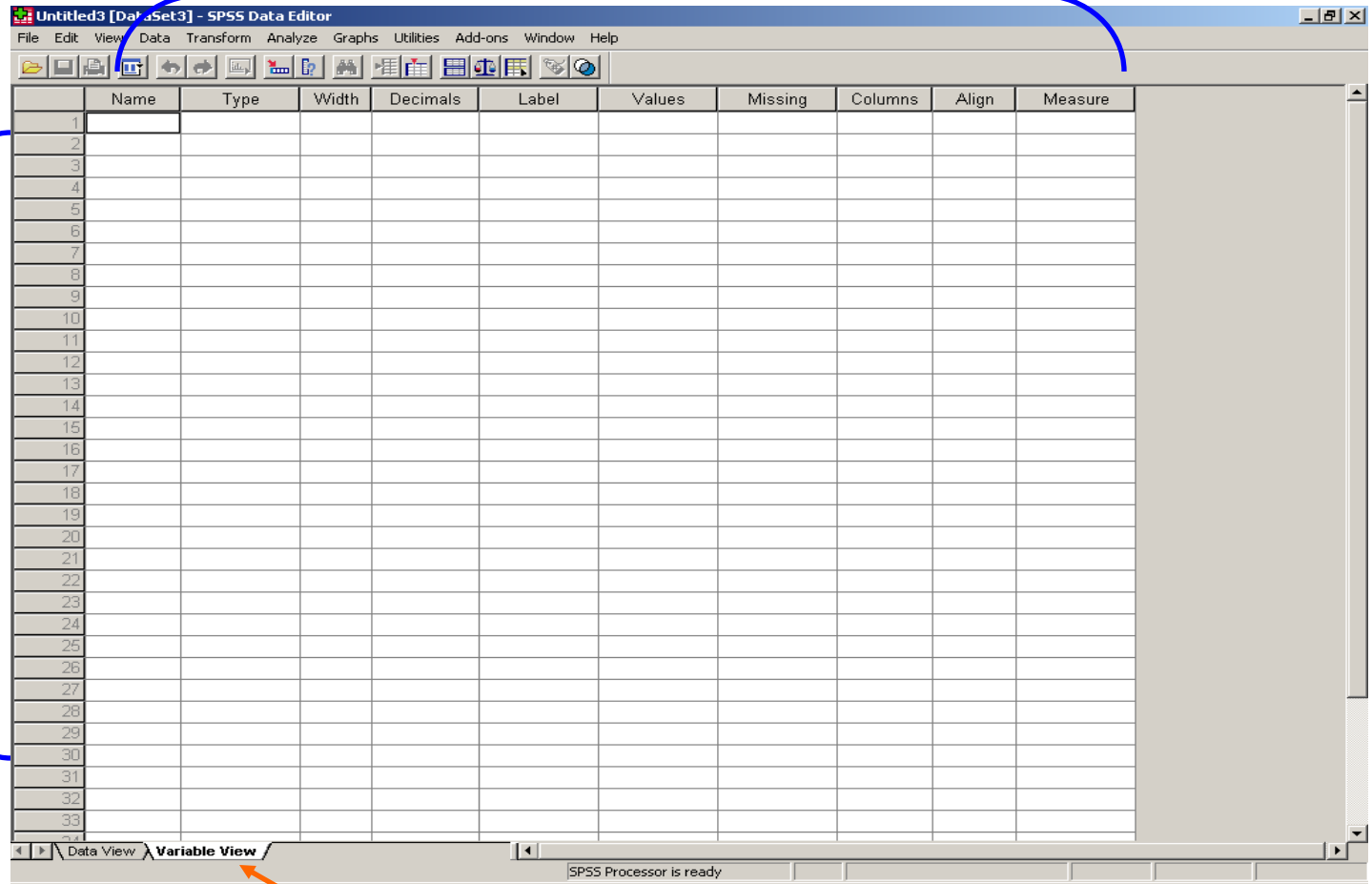
## **Setting Up the Variables**

# Setting Up the Variables

- Click on the Variable View Tab at the bottom left of the Data Editor Screen
- Each row represents one of the variables
- Each column represents a specific characteristic/attribute of the variable

The columns represent specific characteristics of the variables

ROWS represent the Variables used in the study



The screenshot shows the SPSS Data Editor window titled 'Untitled3 [DataSet3] - SPSS Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Add-ons, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The main window displays a grid with columns: Name, Type, Width, Decimals, Label, Values, Missing, Columns, Align, and Measure. The rows are numbered from 1 to 33. The 'Variable View' tab is selected and highlighted at the bottom of the window. The status bar at the bottom indicates 'SPSS Processor is ready'.

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										

Variable View Tab is now highlighted

# Name

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
------	------	-------	----------	-------	--------	---------	---------	-------	---------

- In the first column, enter the ***Name*** of the Variable.
- Each name must be unique
- It can be up to 64 characters long
- The name cannot begin with a number or contain spaces
- Keep names short but descriptive of variable
- Type in ***Happiness***

# Type

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
------	------	-------	----------	-------	--------	---------	---------	-------	---------

- In the second column, click on right of this column
- Select the ***Variable Type***
- The Default is Numeric
- If Numeric, select the Width - Number of digits as well as the Number of Decimal Places
- The Default is Width – 8, Decimal Place - 2

# Type (cont'd)

The screenshot shows the SPSS Data Editor interface. The main window title is "\*Untitled4 [DataSet4] - SPSS Data Editor". The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Add-ons, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The main area is a grid with columns labeled Name, Type, Width, Decimals, Label, Values, Missing, Columns, Align, and Measure. The first row of the grid is selected, and the "Type" column cell is active, showing a dropdown menu with a "..." button. An orange arrow points from the title "Type (cont'd)" to this dropdown menu. A "Variable Type" dialog box is open, showing the following options:

- Numeric
- Comma
- Dot
- Scientific notation
- Date
- Dollar
- Custom currency
- String

The dialog box also includes input fields for "Width: 8" and "Decimal Places: 2", and buttons for "OK", "Cancel", and "Help".

# Label

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
------	------	-------	----------	-------	--------	---------	---------	-------	---------

- Label allows you to provide the variable with a longer, more complete description
- Type in *Average level of happiness on a scale of 1 to 10*

# Value Labels

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
------	------	-------	----------	-------	--------	---------	---------	-------	---------

The screenshot shows the SPSS Data Editor interface. The 'Values' column in the variable list is circled in orange. A 'Value Labels' dialog box is open, allowing users to define labels for specific values. The dialog box contains the following elements:

- Value Labels:** A list box for the defined value-label pairs.
- Value:** A text input field for the numerical value.
- Label:** A text input field for the corresponding label.
- Buttons:** 'Add', 'Change', and 'Remove' buttons to manage the list.
- Final Buttons:** 'OK', 'Cancel', and 'Help' buttons.

- Used for describing the labels of the categories for Nominal or Ordinal (Categorical) Data

# Missing Values

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1						...			
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

\*Untitled4 [DataSet4] - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

Missing Values dialog box:

- No missing values
- Discrete missing values
- Range plus one optional discrete missing value

Buttons: OK, Cancel, Help

Fields: Low, High, Discrete value


- Used to define specific values as being Missing values: non-response, refusal (e.g. 9, 99)
- Should not be legitimate coded values already included in the data set

# Column Width

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
------	------	-------	----------	-------	--------	---------	---------	-------	---------

- The value used for column width indicates how wide the display for each variable will be in the Data View.
- Column widths can also be changed in Data View, by clicking and dragging the column borders.

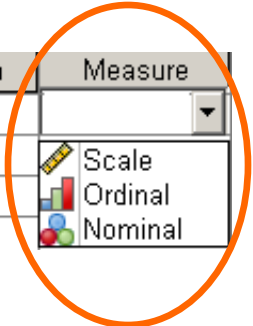
# Alignment

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
									

- Determines how the data for this variable are aligned in their cells in the Data View Window

# Measurement Level

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure



- Specify the variable's measurement level as:
  - Nominal
  - Ordinal
  - Scale (Interval or Ratio)

# Setting up the Variables

- Set up the other Variables in SPSS
  - numofpets
  - petname
  - petage
  - sexofpet
  - typeofpet
  - Othertype
  - petweight
  - satisfaction
  - moneyspent
  - timespent

# Setting Up the Variables

The screenshot shows the SPSS Data Editor interface with a table of variable definitions. The table has 11 columns: Name, Type, Width, Decimals, Label, Values, Missing, Columns, Align, and Measure. The first 11 rows contain the following data:

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	happiness	Numeric	8	0	Average level of happiness on a scal	None	None	8	Right	Scale
2	numofpets	Numeric	8	0	Number of pets owned	None	None	8	Right	Scale
3	petname	String	25	0	Name of the pet you have owned the	None	None	8	Left	Nominal
4	petage	Numeric	8	1	Age of pet	None	None	8	Right	Scale
5	sexofpet	Numeric	8	0	Sex of pet	{1, Male}...	None	8	Right	Nominal
6	typeofpet	Numeric	8	0	Type of animal	{1, Dog}...	None	8	Right	Nominal
7	Othertype	String	50	0	Other type of pet	None	None	8	Left	Nominal
8	petweight	Numeric	8	1	Weight of pet	None	None	8	Right	Scale
9	satisfaction	Numeric	8	0	Level of Satisfaction with owning pet	{1, Very Dissatisfied}.	None	8	Right	Ordinal
10	moneyspent	Dollar	9	2	Amount of money spent on pet per y	None	None	9	Right	Scale
11	timespent	Numeric	8	1	Amount of time spent with pet each	None	None	8	Right	Scale
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										

The bottom status bar shows "Data View" and "Variable View" tabs, with "Variable View" selected and circled in orange. The status bar also indicates "SPSS Processor is ready".

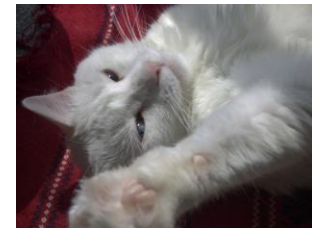


# Pet Survey

## **Entering the Data**



# Pet Survey



*We are very interested in learning more about the pets of students, faculty, and staff at the University of Florida! Please take a few minutes to fill out the survey below. If you do not have a pet, please feel free to imagine a “fantasy” pet and answer the questions with fantasy data.*

1. Please circle your average level of happiness on a scale of 1 (extremely unhappy) to 10 (extremely happy)

(extremely unhappy) 1    2    3    4    5    6    **7**    8    9    10 (extremely happy)

2. How many pets do you own? \_\_\_\_\_ **3** \_\_\_\_\_ pets

3. What is the name of the pet you have owned the longest (or the name of your fantasy pet)? \_\_\_\_\_ **Whiskers** \_\_\_\_\_

*The next set of questions will apply to the pet you have owned for the longest amount of time (or your fantasy pet).*

4. How old is this pet? \_\_\_\_\_ **3.5** \_\_\_\_\_ years

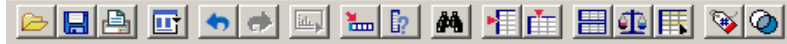


# Entering Data

- Click on the **Data View** Tab at the bottom left of the Data Editor Screen
  - Type **7** in the first line under the happiness Column
  - Tab over to the numofpets Column and type **3**
  - Tab over to the petname Column and type **Whiskers**
  - Tab over to the petage Column and type **3.5**
  - Tab over to the sexofpet Column and type **2**
  - Tab over to the typeofpet Column and type **2**
  - Skip Othertype Column

# Entering Data (cont'd)

- Tab over to the petweight Column and type *3.5*
  - Tab over to the satisfaction Column and type *4*
  - Tab over to the moneyspent Column and type *350*
  - Tab over to the timespent Column and type *12*
- 
- Now practice entering the data from the other surveys as well



27 : happiness Visible: 11 of 11 Variable

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	var	var
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0		
2	5	3	Rover	2.0	1	1		45.0	5	\$660.00	8.0		
3	8	2	Timmy	5.0	1	1		105.0	4	\$650.00	7.0		
4	9	4	Chandler	4.0	1	1		75.0	5	\$575.00	10.0		
5	8	5	Lulu	6.0	2	2		4.6	4	\$400.00	15.0		
6	7	6	Missy	7.0	2	3		2.5	3	\$180.00	7.5		
7	6	3	Zac	2.0	1	5	Rabbit	5.5	4	\$300.00	4.0		
8	2	2	Nemo	3.0	1	4		.1	2	\$150.00	3.0		
9	3	1	Shrek	4.0	1	5	Guinea Pig	2.0	2	\$350.00	8.0		
10	4	4	Jaws	1.5	1	1		120.0	3	\$330.00	12.5		
11	9	5	Lioness	2.0	2	1		135.0	5	\$625.00	14.0		
12	9	6	Fanny	2.0	2	2		4.8	4	\$300.00	9.0		
13	5	2	Mimi	7.0	2	2		5.5	4	\$280.00	12.0		
14	6	1	Joe	1.0	1	1		95.0	5	\$550.00	10.0		
15	7	2	Frankie	1.0	1	3		1.8	1	\$100.00	5.0		
16	2	2	Simba	2.5	2	5	Rabbit	7.0	3	\$225.00	6.0		
17	2	3	Max	4.0	1	1		100.0	4	\$475.00	7.5		
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0		
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0		
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0		
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0		
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5		
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0		
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0		
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0		
26													
27													
28													
29													
30													
31													
32													

# Saving Data

- To Save all the data from the surveys
  - Go to File > Save As
  - Choose a file location
  - Type In **Pet Survey**
  - SPSS saves the file as **Pet Survey.sav**
  - Select Save

# Saving Data

The screenshot displays the SPSS Data Editor interface with a 'Save Data As' dialog box open. The dialog box is titled 'Save Data As' and shows the current directory as 'SPSS Introductory Course'. The file list includes 'Pet Survey.sav', 'Pet Survey\_1.sav', and 'TeacherScaleResults[1].sav'. The 'File name' field is set to 'Pet Survey.sav' and the 'Save as type' is 'SPSS (\*.sav)'. A red circle highlights the 'File name' field. The background data grid shows the following data:

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Other type	petweight	satisfaction	moneyspent	timespent	var	var
1	7	3	Whis								12.0		
2	5	3	Rover								8.0		
3	8	2	Timr								7.0		
4	9	4	Chan								10.0		
5	8	5	Lulu								15.0		
6	7	6	Miss								7.5		
7	6	3	Zac								4.0		
8	2	2	Nemo								3.0		
9	3	1	Shrel								8.0		
10	4	4	Jaws								12.5		
11	9	5	Lione								14.0		
12	9	6	Fann								9.0		
13	5	2	Mimi								12.0		
14	6	1	Joe								10.0		
15	7	2	Frank								5.0		
16	2	2	Simb								6.0		
17	2	3	Max								7.5		
18	3	2	Chloe								6.0		
19	6	1	Sally								8.0		
20	10	1	Daisy								3.0		
21	3	3	Hobo								14.0		
22	8	5	Polly								2.5		
23	3	5	Oscar								12.0		
24	6	2	Buste								13.0		
25	4	1	Preci								9.0		
26													
27													
28													
29													
30													
31													
32													

The status bar at the bottom indicates 'SPSS Processor is ready'.

# Session 4: Importing Data into SPSS

# Importing an Excel File

The screenshot shows a Microsoft Excel spreadsheet titled "Pet Survey.xls". The spreadsheet contains data for 26 pets, with columns for happiness, numofpets, petname, petage, sexofpet, typeofpet, Othertype, petweight, satisfaction, moneyspent, and timespent. The data is as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent			
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0			
2	5	3	Rover	2.0	1	1		45.0	5	\$660.00	8.0			
3	8	2	Timmy	5.0	1	1		105.0	4	\$650.00	7.0			
4	9	4	Chandler	4.0	1	1		75.0	5	\$575.00	10.0			
5	8	5	Lulu	6.0	2	2		4.6	4	\$400.00	15.0			
6	7	6	Missy	7.0	2	3		2.5	3	\$180.00	7.5			
7	6	3	Zac	2.0	1	5	Rabbit	5.5	4	\$300.00	4.0			
8	2	2	Nemo	3.0	1	4		0.1	2	\$150.00	3.0			
9	3	1	Shrek	4.0	1	5	Guinea Pig	2.0	2	\$350.00	8.0			
10	4	4	Jaws	1.5	1	1		120.0	3	\$330.00	12.5			
11	9	5	Lioness	2.0	2	1		135.0	5	\$625.00	14.0			
12	9	6	Fanny	2.0	2	2		4.8	4	\$300.00	9.0			
13	5	2	Mimi	7.0	2	2		5.5	4	\$280.00	12.0			
14	6	1	Joe	1.0	1	1		95.0	5	\$550.00	10.0			
15	7	2	Frankie	1.0	1	3		1.8	1	\$100.00	5.0			
16	2	2	Simba	2.5	2	5	Rabbit	7.0	3	\$225.00	6.0			
17	2	3	Max	4.0	1	1		100.0	4	\$475.00	7.5			
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0			
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0			
20	10	1	Daisy	3.0	2	4		0.2	5	\$100.00	3.0			
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0			
22	8	5	Polly	8.0	2	3		0.8	2	\$175.00	2.5			
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0			
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0			
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0			
26														
27														
28														
29														
30														
31														
32														
33														
34														

The drawing toolbar at the bottom includes options for Draw, AutoShapes, and various drawing tools like lines, rectangles, ovals, and text boxes. The status bar at the bottom left shows "Ready".

# Importing an Excel File

- Select **File > Open > Data**
- Next, select the folder where the file is located via **Look in:**
- Change file type to **Excel (\*.xls)**
- Select the name of the file and **click Open**
- An Excel Data Source Dialogue Box will open
  - Select box to read variables names from the first row, if the first line of the Excel spreadsheet lists the header names
  - Verify the data range
- Select **OK**
- Save File as a **SPSS (\*.sav)** file

The image shows the SPSS Data Editor interface. The 'File' menu is open, and the 'Data...' option is selected. The background is a data grid with column headers 'var' and a status bar 'Visible: 0 of'. The menu items are as follows:

- New
- Open (selected)
- Open Database
- Read Text Data...
- Close (Ctrl+F4)
- Save (Ctrl+S)
- Save As...
- Save All Data
- Export to Database...
- Mark File Read Only
- Rename Dataset...
- Display Data File Information
- Cache Data...
- Stop Processor (Ctrl+.)
- Switch Server...
- Print Preview
- Print... (Ctrl+P)
- Recently Used Data
- Recently Used Files
- Exit



1 : Visible:

	var	var	var	var	var	var	var	var	var	var	var	var
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												

**Open Data** ? X

Look in: SPSS Introductory Course ← → 📁 📄 🗑️

- My Recent Documents
- Desktop
- My Documents
- My Computer
- My Network Places

- 📁 SPSS Course\_files
- 📄 Pet Survey.sav
- 📄 TeacherScaleResults[1].sav

- SPSS (\*.sav)
- SPSS/PC+ (\*.sys)
- Systat (\*.syd)
- Systat (\*.sys)
- SPSS Portable (\*.por)
- Excel (\*.xls)**
- Lotus (\*.w\*)
- SYLK (\*.slk)
- dBase (\*.dbf)
- SAS Long File Name (\*.sas7bdat)
- SAS Short File Name (\*.sd7)
- SAS v6 for Windows (\*.sd2)
- SAS v6 for Unix (\*.ssd01)
- SAS Transport (\*.xpt)
- Stata (\*.dta)
- Text (\*.txt)
- Data (\*.dat)
- All Files (\*.\*)

File name:

Files of type: SPSS (\*.sav)

Open
Paste
Cancel

Untitled1 [DataSet0] - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

Visible: 0 of 0 Variables

	var	var	var	var	var	var	var	var	var	var	var	var	var	var
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														

1 : 1

Open Data

Look in: SPSS Introductory Course

- SPSS Course\_files
  - Pet Survey.xls
  - UF graduate salaries.xls
  - UF.xls

My Recent Documents

Desktop

My Documents

My Computer

My Network Places

File name: Pet Survey.xls

Files of type: Excel (\*.xls)

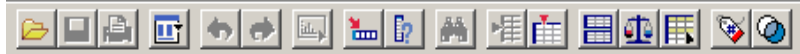
Open

Paste

Cancel

SPSS Processor is ready

Data View Variable View



1 :	var	var	var	var	var	var	var	var	var	var	var	var	Visible:
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

**Opening Excel Data Source**

C:\Documents and Settings\Grace-Anne Jackman\My Documents\University of Florida\_Spring 2008\SPSS Introductory Course\Pet Survey.xls

Read variable names from the first row of data.

Worksheet: Pet Survey [A1:K26]

Range:

Maximum width for string columns: 32767

OK Cancel Help





\*Untitled2 [DataSet1] - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

1 : happiness 7 Visible: 11 of 26

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	mor
1	7	3	Whiskers	3.5	2	2		3.5	4	
2	5	3	Rover	2.0	1	1		45.0	5	
3	8	2	Timmy	5.0	1	1		105.0	4	
4	9	4	Chandler	4.0	1	1		75.0	5	
5	8							4.6	4	
6	7							2.5	3	
7	6							5.5	4	
8	2							.1	2	
9	3							2.0	2	
10	4							120.0	3	
11	9							135.0	5	
12	9							4.8	4	
13	5							5.5	4	
14	6							95.0	5	
15	7							1.8	1	
16	2							7.0	3	
17	2							100.0	4	
18	3							7.5	4	
19	6							4.8	5	
20	10							.2	5	
21	3							95.0	4	
22	8							.8	2	
23	3							130.0	5	
24	6							85.0	4	
25	4							5.0	3	
26										

Save Data As

Save in: SPSS Introductory Course

- SPSS Course\_files
  - Pet Survey.sav
  - TeacherScaleResults[1].sav

My Recent Documents

Desktop

My Documents

My Computer

My Network Places

Keeping 11 of 11 variables.

File name: Pet Survey2.sav

Save as type: SPSS (\*.sav)

Variables...

Save

Paste

Type In File name

Select

# Session 5: Simple Data Manipulations

# Recoding Data

- Transform and recode the quantitative variable *petweight* into an ordinal variable with three new categories
  - Small
  - Medium
  - Large

# Recoding Data

- Select **Transform > Recode Into a Different Variables** in order to create a new variable
  - Choosing Recoding Into Same Variables will overwrite the existing data in petweight. This is not the recommended action.
- A “**Recode Into a Different Variables**” dialog box will appear

Pet Survey.sav [DataSet1] - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help



- Compute Variable...
- Count Values within Cases...
- Recode into Same Variables...
- Recode into Different Variables...**
- Automatic Recode...
- Visual Binning...
- Rank Cases...
- Date and Time Wizard...
- Create Time Series...
- Replace Missing Values...
- Random Number Generators...
- Run Pending Transforms Ctrl+G

1 : happiness

	happiness	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent
1	7	2	2		3.5	4	\$350.00	12.0
2	5	1	1		45.0	5	\$660.00	8.0
3	8	1	1		105.0	4	\$650.00	7.0
4	9	1	1		75.0	5	\$575.00	10.0
5	8	2	2		4.6	4	\$400.00	15.0
6	7	2	3		2.5	3	\$180.00	7.5
7	6	1	5	Rabbit	5.5	4	\$300.00	4.0
8	2	1	4		.1	2	\$150.00	3.0
9	3	1	5	Guinea Pig	2.0	2	\$350.00	8.0
10	4	4	Jaws		1.5	1	\$330.00	12.5
11	9	5	Lioness		2.0	2	\$625.00	14.0
12	9	6	Fanny		2.0	2	\$300.00	9.0
13	5	2	Mimi		7.0	2	\$280.00	12.0
14	6	1	Joe		1.0	1	\$550.00	10.0
15	7	2	Frankie		1.0	1	\$100.00	5.0
16	2	2	Simba		2.5	2	\$225.00	6.0
17	2	3	Max		4.0	1	\$475.00	7.5
18	3	2	Chloe		12.0	2	\$150.00	6.0
19	6	1	Sally		2.0	2	\$200.00	8.0
20	10	1	Daisy		3.0	2	\$100.00	3.0
21	3	3	Hobo		4.0	1	\$750.00	14.0
22	8	5	Polly		8.0	2	\$175.00	2.5
23	3	5	Oscar		6.0	1	\$900.00	12.0
24	6	2	Buster		3.0	1	\$550.00	13.0
25	4	1	Precious		1.0	2	\$275.00	9.0

# Recoding Data

- Highlight the variable ***petweight*** and use the arrow to move that variable into the *Input Variable* → *Output Variable* box.
- In the ***Name*** box under the ***Output Variable*** section, type the new variable name ***petsize*** and type the Variable Label ***Size of pet***, then Click the **CHANGE** button
- Select the Old and New Values Button. This tell SPSS how to recode the data into our 3 new categories
- Another Dialog window will appear



1 :

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Other type	petweight	satisfaction	moneyspent	timespent
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0
2	5	3									8.0
3	8	2									7.0
4	9	4									10.0
5	8	5									15.0
6	7	6									7.5
7	6	3									4.0
8	2	2									3.0
9	3	1									8.0
10	4	4									12.5
11	9	5									14.0
12	9	6									14.0
13	5	2									9.0
14	6	1									12.0
15	7	2									10.0
16	2	2									5.0
17	2	3									6.0
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0

**Recode into Different Variables**

Numeric Variable -> Output Variable:

petweight -> petsize

Output Variable Name: petsize

Label: Size of pet

Change

Old and New Values...

If... (optional case selection condition)

OK Paste Reset Cancel Help

# Recoding Data

- Select ***Range...through***
  - Type in **0.0** in the top box and **5.0** in the box under *through*
  - Type **1** in the Value box under the New Value section, the click **ADD**
  
- Select ***Range...through***
  - Type in **5.1** in the top box and **20.0** in the box under *through*
  - Type **2** in the Value box under the New Value section, the click **ADD**
  
- Select ***Range, value through HIGHEST***
  - Type in **20.1**
  - Type **3** in the Value box under the New Value section, the click **ADD**
  
- Next, select **CONTINUE**, then click **OK**

\*Pet Survey.sav [DataSet1] - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

	Name	Type	Width	Decimals	Label	Values	Missing	Columns
1	happiness	Numeric	8	0	Average level o	None	None	8
2	numofpets	Numeric	8	0	Number of pet	None	None	8
3	petname	String	25	0	Name of the p	None	None	8
4	petage	Numeric	8	1	Age of pet	None	None	8
5	sexofpet	Numeric	8	0	Sex of pet	{1, Male}...	None	8
6	typeofpet	Numeric	8	0	Type of animal	{1, Dog}	None	8
7	Other							8
8	petw							8
9	satis							8
10	mon							9
11	time							8
12	pets							10
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

**Value Labels** [?] [X]

Value Labels

Value:

Label:

Add Change Remove

1.00 = "Small"  
2.00 = "Medium"

OK Cancel Help



	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0
2	5	3									8.0
3	8	2									7.0
4	9	4									10.0
5	8	5									15.0
6	7	6									7.5
7	6	3									4.0
8	2	2									3.0
9	3	1									8.0
10	4	4									12.5
11	9	5									14.0
12	9	6									9.0
13	5	2									12.0
14	6	1									10.0
15	7	2									5.0
16	2	2									6.0
17	2	3									7.5
18	3	2									6.0
19	6	1									8.0
20	10	1									3.0
21	3	3									14.0
22	8	5									2.5
23	3	5									12.0
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0

**Recode into Different Variables**

Numeric Variable -> Output Variable:

**Recode into Different Variables: Old and New Values**

Old Value

- Value:
- System-missing
- System- or user-missing
- Range:
- Range, LOWEST through value:
- Range, value through HIGHEST:
- All other values

New Value

- Value: 3
- System-missing
- Copy old value(s)

Old -> New:

- 0.0 thru 5.0 -> 1
- 5.1 thru 20.0 -> 2

Buttons: Add, Change, Remove

Options:

- Output variables are strings Width: 8
- Convert numeric strings to numbers ('5'>5)

Buttons: Continue, Cancel, Help



	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0
2									5	\$660.00	8.0
3									4	\$650.00	7.0
4									5	\$575.00	10.0
5									4	\$400.00	15.0
6									3	\$180.00	7.5
7									4	\$300.00	4.0
8									2	\$150.00	3.0
9									2	\$350.00	8.0
10									3	\$330.00	12.5
11									5	\$625.00	14.0
12									4	\$300.00	9.0
13									4	\$280.00	12.0
14									5	\$550.00	10.0
15									1	\$100.00	5.0
16									3	\$225.00	6.0
17									4	\$475.00	7.5
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0

**Recode into Different Variables**

Numeric Variable -> Output Variable:

petweight -> petsize

Output Variable

Name:

Label:

Change

Old and New Values...

If... (optional case selection condition)

OK Paste Reset Cancel Help



In Data View, the new variable, ***petsize***, will now appear as the last column in the variables

\*Pet Survey.sav [DataSet1] - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

1 : petsize 1 Visible: 12 of 26

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0	1.00
2	5	3	Rover	2.0	1	1		45.0	5	\$660.00	8.0	3.00
3	8	2	Timmy	5.0	1	1		105.0	4	\$650.00	7.0	3.00
4	9	4	Chandler	4.0	1	1		75.0	5	\$575.00	10.0	3.00
5	8	5	Lulu	6.0	2	2		4.6	4	\$400.00	15.0	1.00
6	7	6	Missy	7.0	2	3		2.5	3	\$180.00	7.5	1.00
7	6	3	Zac	2.0	1	5	Rabbit	5.5	4	\$300.00	4.0	2.00
8	2	2	Nemo	3.0	1	4		.1	2	\$150.00	3.0	1.00
9	3	1	Shrek	4.0	1	5	Guinea Pig	2.0	2	\$350.00	8.0	1.00
10	4	4	Jaws	1.5	1	1		120.0	3	\$330.00	12.5	3.00
11	9	5	Lioness	2.0	2	1		135.0	5	\$625.00	14.0	3.00
12	9	6	Fanny	2.0	2	2		4.8	4	\$300.00	9.0	1.00
13	5	2	Mimi	7.0	2	2		5.5	4	\$280.00	12.0	2.00
14	6	1	Joe	1.0	1	1		95.0	5	\$550.00	10.0	3.00
15	7	2	Frankie	1.0	1	3		1.8	1	\$100.00	5.0	1.00
16	2	2	Simba	2.5	2	5	Rabbit	7.0	3	\$225.00	6.0	2.00
17	2	3	Max	4.0	1	1		100.0	4	\$475.00	7.5	3.00
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0	2.00
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0	1.00
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0	1.00
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0	3.00
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5	1.00
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0	3.00
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0	3.00
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0	1.00

# Recoding Data

- Click on the bottom left of the screen to switch to Variable View and define the values for this new variable
  - Type **1** in the *Value* box and **Small** in the *Label* box, click **ADD**
  - Type **2** in the *Value* box and **Medium** in the *Label* box, click **ADD**
  - Type **3** in the *Value* box and **Large** in the *Label* box, click **ADD**
  - Select **OK**
- Change to the Data View Window to verify whether these changes have been made.
- Resave the SPSS file



	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	happiness	Numeric	8	0	Average level o	None	None	8	Right	Scale
2	numofpets	Numeric	8	0	Number of pet	None	None	8	Right	Scale
3	petname	String	25	0	Name of the p	None	None	8	Left	Nominal
4	petage	Numeric	8	1	Age of pet	None	None	8	Right	Scale
5	sexofpet	Numeric	8	0	Sex of pet	{1, Male}...	None	8	Right	Scale
6	typeofpet	Numeric	8	0	Type of animal	{1, Dog}...	None	8	Right	Scale
7	Othertype	String	50	0	Other type of p	None	None	8	Left	Nominal
8	petweight	Numeric	8	1	Weight of pet	None	None	8	Right	Scale
9	satisfaction	Numeric	8	0	Level of Satisfa	{1, Very Dissat	None	8	Right	Scale
10	moneyspen	Dollar	9	2	Amount of mo	None	None	9	Right	Scale
11	timespent	Numeric	8	1	Amount of tim	None	None	8	Right	Scale
12	petsize	Numeric	8	0	Size of pet	{1, Small}... ..	None	8	Right	Scale
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										

**Value Labels** [?] [X]

Value Labels

Value:

Label:

Add

Change

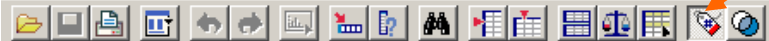
Remove

1 = "Small"  
2 = "Medium"  
3 = "Large"

OK

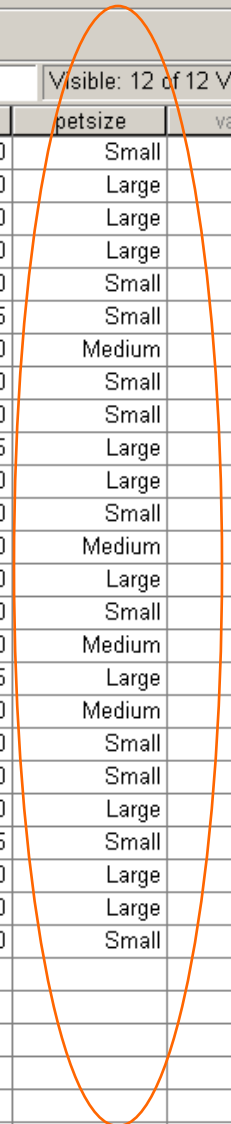
Cancel

Help



1 : happiness 7 Visible: 12 of 12 Variable

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Other type	petweight	satisfaction	moneyspent	timespent	petsize	var
1	7	3	Whiskers	3.5	Female	Cat		3.5	Satisfied	\$350.00	12.0	Small	
2	5	3	Rover	2.0	Male	Dog		45.0	Very Satisfi	\$660.00	8.0	Large	
3	8	2	Timmy	5.0	Male	Dog		105.0	Satisfied	\$650.00	7.0	Large	
4	9	4	Chandler	4.0	Male	Dog		75.0	Very Satisfi	\$575.00	10.0	Large	
5	8	5	Lulu	6.0	Female	Cat		4.6	Satisfied	\$400.00	15.0	Small	
6	7	6	Missy	7.0	Female	Bird		2.5	Neutral	\$180.00	7.5	Small	
7	6	3	Zac	2.0	Male	Other	Rabbit	5.5	Satisfied	\$300.00	4.0	Medium	
8	2	2	Nemo	3.0	Male	Fish		.1	Dissatisfied	\$150.00	3.0	Small	
9	3	1	Shrek	4.0	Male	Other	Guinea Pig	2.0	Dissatisfied	\$350.00	8.0	Small	
10	4	4	Jaws	1.5	Male	Dog		120.0	Neutral	\$330.00	12.5	Large	
11	9	5	Lioness	2.0	Female	Dog		135.0	Very Satisfi	\$625.00	14.0	Large	
12	9	6	Fanny	2.0	Female	Cat		4.8	Satisfied	\$300.00	9.0	Small	
13	5	2	Mimi	7.0	Female	Cat		5.5	Satisfied	\$280.00	12.0	Medium	
14	6	1	Joe	1.0	Male	Dog		95.0	Very Satisfi	\$550.00	10.0	Large	
15	7	2	Frankie	1.0	Male	Bird		1.8	Very Dissa	\$100.00	5.0	Small	
16	2	2	Simba	2.5	Female	Other	Rabbit	7.0	Neutral	\$225.00	6.0	Medium	
17	2	3	Max	4.0	Male	Dog		100.0	Satisfied	\$475.00	7.5	Large	
18	3	2	Chloe	12.0	Female	Cat		7.5	Satisfied	\$150.00	6.0	Medium	
19	6	1	Sally	2.0	Female	Cat		4.8	Very Satisfi	\$200.00	8.0	Small	
20	10	1	Daisy	3.0	Female	Fish		.2	Very Satisfi	\$100.00	3.0	Small	
21	3	3	Hobo	4.0	Male	Dog		95.0	Satisfied	\$750.00	14.0	Large	
22	8	5	Polly	8.0	Female	Bird		.8	Dissatisfied	\$175.00	2.5	Small	
23	3	5	Oscar	6.0	Male	Dog		130.0	Very Satisfi	\$900.00	12.0	Large	
24	6	2	Buster	3.0	Male	Dog		85.0	Satisfied	\$550.00	13.0	Large	
25	4	1	Precious	1.0	Female	Cat		5.0	Neutral	\$275.00	9.0	Small	
26													
27													
28													
29													
30													
31													
32													



**Session 6:**

**Performing Simple Descriptive  
Statistics**

***The type of data determines  
the choice of statistical  
analysis***

# Types of Variables

## Categorical Variables

***Variables for which the responses are divided into non-overlapping categories or groups***

Nominal	Having unordered categories
Ordinal	Having categories ordered by size from small to large or visa versa
Binary	Having only two categories

- ✓ Counts/frequencies
- ✓ Mode
- ✓ Proportions
- ✓ Bar Charts
- ✓ Pie Charts

## Numerical Variables

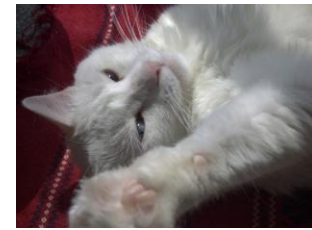
***A variable for which the responses are meaningful numbers (i.e. you can add and subtract them)***

Discrete	Having discrete, countable values, usually with no intermediate values.
Continuous	Having an infinite number of possible values falling between an interval or any two observed values

- ✓ Mean, Mode, Median
- ✓ Range, Variance, Std Deviation,
- ✓ Histograms
- ✓ Box Plot



# Pet Survey



Question #	Name	Variable Type
Q1	happiness	➤ <i>Numerical continuous</i>
Q2	numofpets	➤ <i>Numerical discrete</i>
Q3	petname	➤ <i>Alphanumeric/text</i>
Q4	petage	➤ <i>Numerical continuous</i>
Q5	sexofpet	➤ <i>Binary</i>
Q6	typeofpet	➤ <i>Categorical nominal</i>
Q7	petweight	➤ <i>Numerical continuous</i>
Q8	satisfaction	➤ <i>Categorical ordinal</i>
Q9	moneyspent	➤ <i>Numerical continuous</i>
Q10	timespent	➤ <i>Numerical continuous</i>
Q11	petsize	➤ <i>Categorical ordinal</i>

# Categorical Variables

- Select **Analyze > Descriptive Statistics > Frequencies**
- A **Frequencies dialog box** will appear
- Move the categorical variables (***sexofpet***, ***satisfaction*** and ***petsize***), using the arrow into the **Variables** choice box
- Click on **Statistics**



28 : petage

	happiness	numofpet:	pet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize				
1	7												
2	5												
3	8												
4	9												
5	8												
6	7												
7	6												
8	2												
9	3												
10	4												
11	9												
12	9												
13	5	2	winni		7.0	2	2	4	\$280.00	12.0	1		
14	6	1	Joe		1.0	1	1	5	\$550.00	10.0	3		
15	7	2	Frankie		1.0	1	3	1	\$100.00	5.0	1		
16	2	2	Simba		2.5	2	5	Rabbit	7.0	3	\$225.00	6.0	1
17	2	3	Max		4.0	1	1		100.0	4	\$475.00	7.5	3
18	3	2	Chloe		12.0	2	2		7.5	4	\$150.00	6.0	1
19	6	1	Sally		2.0	2	2		4.8	5	\$200.00	8.0	1
20	10	1	Daisy		3.0	2	4		.2	5	\$100.00	3.0	1
21	3	3	Hobo		4.0	1	1		95.0	4	\$750.00	14.0	3
22	8	5	Polly		8.0	2	3		.8	2	\$175.00	2.5	1
23	3	5	Oscar		6.0	1	1		130.0	5	\$900.00	12.0	3
24	6	2	Buster		3.0	1	1		85.0	4	\$550.00	13.0	3
25	4	1	Precious		1.0	2	2		5.0	3	\$275.00	9.0	1

Visible: 12



28 : petage

Visible: 12

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1								3.5	4	\$350.00	12.0	1
2								45.0	5	\$660.00	8.0	3
3								105.0	4	\$650.00	7.0	3
4								75.0	5	\$575.00	10.0	3
5								4.6	4	\$400.00	15.0	1
6								2.5	3	\$180.00	7.5	1
7							Rabbit	5.5	4	\$300.00	4.0	1
8								.1	2	\$150.00	3.0	1
9							Guinea Pig	2.0	2	\$350.00	8.0	1
10								120.0	3	\$330.00	12.5	3
11								135.0	5	\$625.00	14.0	3
12								4.8	4	\$300.00	9.0	1
13								5.5	4	\$280.00	12.0	1
14								95.0	5	\$550.00	10.0	3
15	7	2	Frankie	1.0	1	3		1.8	1	\$100.00	5.0	1
16	2	2	Simba	2.5	2	5	Rabbit	7.0	3	\$225.00	6.0	1
17	2	3	Max	4.0	1	1		100.0	4	\$475.00	7.5	3
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0	1
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0	1
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0	1
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0	3
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5	1
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0	3
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0	3
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0	1

**Frequencies**

Variable(s):  
 Sex of pet [sexofpet]  
 Size of pet [petsize]

Display frequency tables

Statistics... Charts... Format...

OK Paste Reset Cancel Help



# Categorical Variables

- Under *Central Tendency*, select **Mode**, then Select **CONTINUE**
- Select **Charts**. Under *Chart Type*, select **Bar Charts**. Under *Chart Values*, select **Percentages**
- Select **CONTINUE**, then **OK**.



28 : petage Visible: 12

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1	7	1	Sam	2.5	2	2		3.5	4	\$350.00	12.0	1
2	5	1	Sam	4.5	2	2		45.0	5	\$660.00	8.0	3
3	6	1	Sam	105.0	2	2		105.0	4	\$650.00	7.0	3
4	6	1	Sam	75.0	2	2		75.0	5	\$575.00	10.0	3
5	6	1	Sam	4.6	2	2		4.6	4	\$400.00	15.0	1
6	5	1	Sam	2.5	2	2		2.5	3	\$180.00	7.5	1
7	5	1	Sam	5.5	2	2	rabbit	5.5	4	\$300.00	4.0	1
8	5	1	Sam	.1	2	2		.1	2	\$150.00	3.0	1
9	5	1	Sam	2.0	2	2	guinea Pig	2.0	2	\$350.00	8.0	1
10	5	1	Sam	120.0	2	2		120.0	3	\$330.00	12.5	3
11	5	1	Sam	135.0	2	2		135.0	5	\$625.00	14.0	3
12	5	1	Sam	4.8	2	2		4.8	4	\$300.00	9.0	1
13	5	1	Sam	5.5	2	2		5.5	4	\$280.00	12.0	1
14	5	1	Sam	95.0	2	2		95.0	5	\$550.00	10.0	3
15	5	1	Sam	1.8	2	2		1.8	1	\$100.00	5.0	1
16	5	1	Sam	7.0	2	2	rabbit	7.0	3	\$225.00	6.0	1
17	5	1	Sam	100.0	2	2		100.0	4	\$475.00	7.5	3
18	5	1	Sam	7.5	2	2		7.5	4	\$150.00	6.0	1
19	5	1	Sam	4.8	2	2		4.8	5	\$200.00	8.0	1
20	10	1	Daisy	3.0	2	2		.2	5	\$100.00	3.0	1
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0	3
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5	1
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0	3
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0	3
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0	1

**Frequencies**

Age of pet [petage] Variable(s):

**Frequencies: Statistics**

**Percentile Values**

Quartiles

Cut points for: 10 equal groups

Percentile(s):

Add Change Remove

**Central Tendency**

Mean

Median

Mode

Sum

Values are group midpoints

**Dispersion**

Std. deviation  Minimum

Variance  Maximum

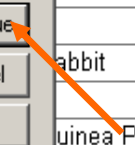
Range  S.E. mean

**Distribution**

Skewness

Kurtosis

Continue Cancel Help





28 : petage

Visible: 12

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1								3.5	4	\$350.00	12.0	1
2								45.0	5	\$660.00	8.0	3
3								105.0	4	\$650.00	7.0	3
4								75.0	5	\$575.00	10.0	3
5								4.6	4	\$400.00	15.0	1
6								2.5	3	\$180.00	7.5	1
7							Rabbit	5.5	4	\$300.00	4.0	1
8								.1	2	\$150.00	3.0	1
9							Guinea Pig	2.0	2	\$350.00	8.0	1
10								120.0	3	\$330.00	12.5	3
11								135.0	5	\$625.00	14.0	3
12								4.8	4	\$300.00	9.0	1
13								5.5	4	\$280.00	12.0	1
14								95.0	5	\$550.00	10.0	3
15	7				1	3		1.8	1	\$100.00	5.0	1
16	2				2	5	Rabbit	7.0	3	\$225.00	6.0	1
17	2	3	Max	4.0	1	1		100.0	4	\$475.00	7.5	3
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0	1
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0	1
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0	1
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0	3
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5	1
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0	3
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0	3
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0	1

**Frequencies**

Variable(s): Sex of pet [sexofpet]

**Frequencies: Charts**

Chart Type

- None
- Bar charts
- Pie charts
- Histograms:
  - With normal curve

Chart Values

- Frequencies
- Percentages

Buttons: Continue, Cancel, Help



28 : petage Visible: 12

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1								3.5	4	\$350.00	12.0	1
2								45.0	5	\$660.00	8.0	3
3								105.0	4	\$650.00	7.0	3
4								75.0	5	\$575.00	10.0	3
5								4.6	4	\$400.00	15.0	1
6								2.5	3	\$180.00	7.5	1
7							Rabbit	5.5	4	\$300.00	4.0	1
8								.1	2	\$150.00	3.0	1
9							Guinea Pig	2.0	2	\$350.00	8.0	1
10								120.0	3	\$330.00	12.5	3
11								135.0	5	\$625.00	14.0	3
12								4.8	4	\$300.00	9.0	1
13								5.5	4	\$280.00	12.0	1
14								95.0	5	\$550.00	10.0	3
15	7	2	Frankie	1.0	1	3		1.8	1	\$100.00	5.0	1
16	2	2	Simba	2.5	2	5	Rabbit	7.0	3	\$225.00	6.0	1
17	2	3	Max	4.0	1	1		100.0	4	\$475.00	7.5	3
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0	1
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0	1
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0	1
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0	3
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5	1
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0	3
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0	3
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0	1

**Frequencies** [X]

Variable(s):  
Sex of pet [sexofpet]  
Size of pet [petsize]

Display frequency tables

Statistics... Charts... Format...

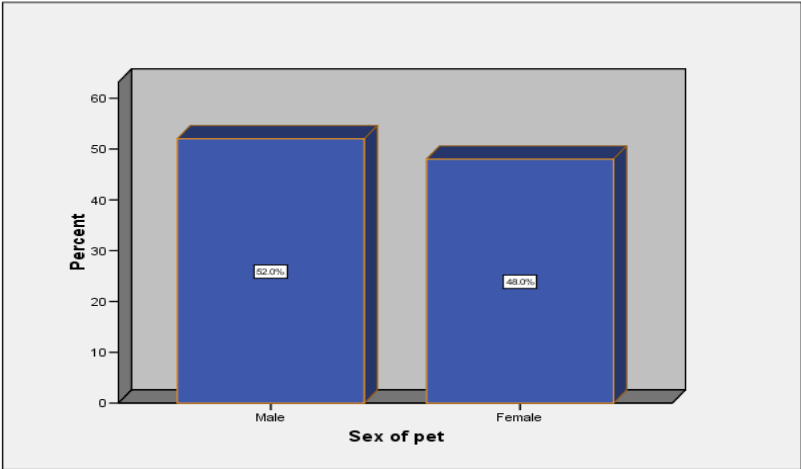
OK Paste Reset Cancel Help



# Sample Output

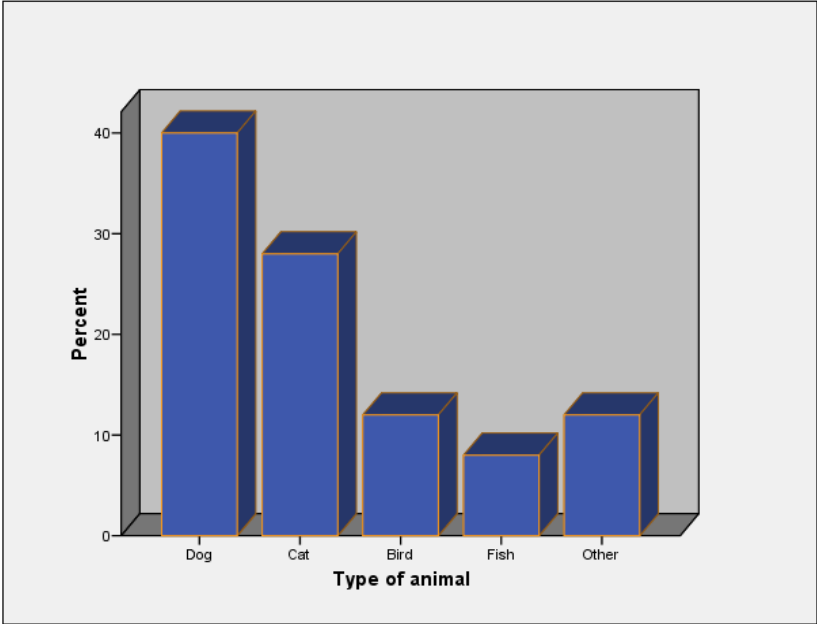
**Sex of pet**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	13	52.0	52.0	52.0
	Female	12	48.0	48.0	100.0
	Total	25	100.0	100.0	



**Type of animal**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dog	10	40.0	40.0	40.0
	Cat	7	28.0	28.0	68.0
	Bird	3	12.0	12.0	80.0
	Fish	2	8.0	8.0	88.0
	Other	3	12.0	12.0	100.0
	Total	25	100.0	100.0	



**Size of pet**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Small	15	60.0	60.0	60.0
	Large	10	40.0	40.0	100.0
	Total	25	100.0	100.0	

# Numerical Variables

- Select **Analyze > Descriptive Statistics > Descriptives**
- A **Descriptives** dialog box will appear
- Move the numerical variables (*happiness*, *petage*, *petweight*, *moneyspent* and *timespent*), using the arrow into the **Variables** choice box
- Click on the **Options** button



28 : petage

- Reports
- Descriptive Statistics**
  - ▶ Frequencies...
  - ▶ Descriptives...**
  - ▶ Explore...
  - ▶ Crosstabs...
  - ▶ Ratio...
  - ▶ P-P Plots...
  - ▶ Q-Q Plots...
- Compare Means
- General Linear Model
- Generalized Linear Models
- Mixed Models
- Correlate
- Regression
- Loglinear
- Classify
- Data Reduction
- Scale
- Nonparametric Tests
- Time Series
- Survival
- Multiple Response
- Quality Control
- ROC Curve...

Visible: 12

	happiness	numofpet:	pet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1	7								
2	5				3.5	4	\$350.00	12.0	1
3	8				45.0	5	\$660.00	8.0	3
4	9				105.0	4	\$650.00	7.0	3
5	8				75.0	5	\$575.00	10.0	3
6	7				4.6	4	\$400.00	15.0	1
7	6				2.5	3	\$180.00	7.5	1
8	2			Rabbit	5.5	4	\$300.00	4.0	1
9	3				.1	2	\$150.00	3.0	1
10	4			Guinea Pig	2.0	2	\$350.00	8.0	1
11	9				120.0	3	\$330.00	12.5	3
12	9				135.0	5	\$625.00	14.0	3
13	5				4.8	4	\$300.00	9.0	1
14	6				5.5	4	\$280.00	12.0	1
15	7	1	Joe	1.0	1	1	\$550.00	10.0	3
16	2	2	Frankie	1.0	1	3	\$100.00	5.0	1
17	2	2	Simba	2.5	2	5	\$225.00	6.0	1
18	2	3	Max	4.0	1	1	\$475.00	7.5	3
19	3	2	Chloe	12.0	2	2	\$150.00	6.0	1
20	6	1	Sally	2.0	2	2	\$200.00	8.0	1
21	10	1	Daisy	3.0	2	4	\$100.00	3.0	1
22	3	3	Hobo	4.0	1	1	\$750.00	14.0	3
23	8	5	Polly	8.0	2	3	\$175.00	2.5	1
24	3	5	Oscar	6.0	1	1	\$900.00	12.0	3
25	6	2	Buster	3.0	1	1	\$550.00	13.0	3
26	4	1	Precious	1.0	2	2	\$275.00	9.0	1



28 : petage Visible: 12

**Descriptives** X

- Number of pets owned
- Sex of pet [sexof(pet)]
- Type of animal [typeof(pet)]
- Level of Satisfaction with pet [satisfaction]
- Size of pet [petsize]

Variable(s):

- Average level of happiness [happiness]
- Age of pet [petage]
- Weight of pet [petweight]
- Amount of money spent on pet [moneyspent]
- Amount of time spent with pet [timespent]

OK

Paste

Reset

Cancel

Help

Options...

Save standardized values as variables

pet	Other	type	petweight	satisfaction	moneyspent	timespent	petsize
2			3.5	4	\$350.00	12.0	1
1			45.0	5	\$660.00	8.0	3
1			105.0	4	\$650.00	7.0	3
1			75.0	5	\$575.00	10.0	3
2			4.6	4	\$400.00	15.0	1
3			2.5	3	\$180.00	7.5	1
5	Rabbit		5.5	4	\$300.00	4.0	1
4			.1	2	\$150.00	3.0	1
5	Guinea Pig		2.0	2	\$350.00	8.0	1
1			120.0	3	\$330.00	12.5	3
1			135.0	5	\$625.00	14.0	3
2			4.8	4	\$300.00	9.0	1
2			5.5	4	\$280.00	12.0	1
1			95.0	5	\$550.00	10.0	3
3			1.8	1	\$100.00	5.0	1
5	Rabbit		7.0	3	\$225.00	6.0	1
1			100.0	4	\$475.00	7.5	3
2			7.5	4	\$150.00	6.0	1
2			4.8	5	\$200.00	8.0	1
4			.2	5	\$100.00	3.0	1
1			95.0	4	\$750.00	14.0	3
3			.8	2	\$175.00	2.5	1
1			130.0	5	\$900.00	12.0	3
1			85.0	4	\$550.00	13.0	3
2			5.0	3	\$275.00	9.0	1

# Numerical Variables

- Ensure that the options ***Mean, Std Deviation, Minimum*** and ***Maximum*** are selected
- If you are interested in the ***Skewness*** or ***Kurtosis*** of the distribution you can select those as well
- Select **CONTINUE**, then **OK**.



28 : petage Visible: 12

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0	1
2	5	3	Rover	2.0	1	1		45.0	5	\$660.00	8.0	3
3	8	2	Timmy	5.0	1	1		105.0	4	\$650.00	7.0	3
4	9	4	Chandler	4.0	1	1		75.0	5	\$575.00	10.0	3
5	8	5	Lulu	6.0	2	2		4.6	4	\$400.00	15.0	1
6	7	6	Missy	7.0	2	3		2.5	3	\$180.00	7.5	1
7	6	3	Zac	2.0							4.0	1
8	2	2	Nemo	3.0							3.0	1
9	3	1	Shrek	4.0							8.0	1
10	4	4	Jaws	1.5							12.5	3
11	9	5	Lioness	2.0							14.0	3
12	9	6	Fanny	2.0							9.0	1
13	5	2	Mimi	7.0							12.0	1
14	6	1	Joe	1.0							10.0	3
15	7	2	Frankie	1.0							5.0	1
16	2	2	Simba	2.5							6.0	1
17	2	3	Max	4.0							7.5	3
18	3	2	Chloe	12.0	2				4	\$150.00	6.0	1
19	6	1	Sally	2.0	2				5	\$200.00	8.0	1
20	10	1	Daisy	3.0	2				5	\$100.00	3.0	1
21	3	3	Hobo	4.0	1				4	\$750.00	14.0	3
22	8	5	Polly	8.0	2				2	\$175.00	2.5	1
23	3	5	Oscar	6.0	1				5	\$900.00	12.0	3
24	6	2	Buster	3.0	1				4	\$550.00	13.0	3
25	4	1	Precious	1.0	2			5.0	3	\$275.00	9.0	1

**Descriptives** [X]

Variable(s):

**Descriptives: Options** [X]

Mean       Sum

Dispersion

Std. deviation       Minimum

Variance       Maximum

Range       S.E. mean

Distribution

Kurtosis       Skewness

Display Order

Variable list

Alphabetic

Ascending means

Descending means

Buttons: Continue, Cancel, Help, OK, Paste, Reset, Options...



28 : petage Visible: 12

	happiness	numofpets	petname	petage	sexofpet	typeofpet	Othertype	petweight	satisfaction	moneyspent	timespent	petsize
1	7	3	Whiskers	3.5	2	2		3.5	4	\$350.00	12.0	1
2	5	3	Rover	2.0	1	1		45.0	5	\$660.00	8.0	3
3	8	2	Timmy	5.0	1	1		105.0	4	\$650.00	7.0	3
4	9	4	Chandler	4.0	1	1		75.0	5	\$575.00	10.0	3
5	8	5	Lulu	6.0	2	2		4.6	4	\$400.00	15.0	1
6	7	6	Missy	7.0	2	3		2.5	3	\$180.00	7.5	1
7	6	3	Zac	2.0							4.0	1
8	2	2	Nemo	3.0							3.0	1
9	3	1	Shrek	4.0							8.0	1
10	4	4	Jaws	1.5							12.5	3
11	9	5	Lioness	2.0							14.0	3
12	9	6	Fanny	2.0							9.0	1
13	5	2	Mimi	7.0							12.0	1
14	6	1	Joe	1.0							10.0	3
15	7	2	Frankie	1.0							5.0	1
16	2	2	Simba	2.5							6.0	1
17	2	3	Max	4.0							7.5	3
18	3	2	Chloe	12.0	2	2		7.5	4	\$150.00	6.0	1
19	6	1	Sally	2.0	2	2		4.8	5	\$200.00	8.0	1
20	10	1	Daisy	3.0	2	4		.2	5	\$100.00	3.0	1
21	3	3	Hobo	4.0	1	1		95.0	4	\$750.00	14.0	3
22	8	5	Polly	8.0	2	3		.8	2	\$175.00	2.5	1
23	3	5	Oscar	6.0	1	1		130.0	5	\$900.00	12.0	3
24	6	2	Buster	3.0	1	1		85.0	4	\$550.00	13.0	3
25	4	1	Precious	1.0	2	2		5.0	3	\$275.00	9.0	1
26												

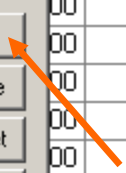
**Descriptives** X

- Number of pets owned
- Sex of pet [sexofpet]
- Type of animal [typeofpet]
- Level of Satisfaction with pet [satisfaction]
- Size of pet [petsize]

Variable(s):

- Average level of happiness [happiness]
- Age of pet [petage]
- Weight of pet [petweight]
- Amount of money spent [moneyspent]
- Amount of time spent with pet [timespent]

Save standardized values as variables



# Sample Output

## Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Average level of happiness on a scale of 1 to 10	25	2	10	5.68	2.495	6.227
Age of pet	25	1.0	12.0	3.860	2.6241	6.886
Weight of pet	25	.1	135.0	41.624	50.1853	2518.562
Amount of money spent on pet per year	25	\$100.00	\$900.00	\$384.0000	\$220.09941	48443.750
Amount of time spent with pet each week	25	2.5	15.0	8.720	3.6858	13.585
Valid N (listwise)	25					

# Summary

- You should now be able to:
  - ✓ Start up and enter SPSS
  - ✓ Enter and Save Data in SPSS
  - ✓ Import data from an Excel spreadsheet into SPSS
  - ✓ Recode a variable
  - ✓ Conduct simple descriptive statistics in SPSS

Thank You

**Any Questions??**

**If you have any additional questions or  
comments, please contact:**

**Cynthia Wilson Garvan, PhD**

**Statistics Director, Office of Educational Research**

**College of Education, University of Florida**

**E-mail: *cgarvan@ufl.edu***