

INPUT FILE = Paper Towel Sales.xls

DESCRIPTIVES: Analyze/Descriptive Statistics/Descriptives

Select variable, then click on OK

The screenshot shows the SPSS Data Editor interface. The title bar reads '\*Untitled2 [DataSet1] - SPSS Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Add-ons, Window, and Help. The Analyze menu is open, showing options like Reports, Descriptive Statistics, Tables, Compare Means, General Linear Model, Correlate, Regression, Classify, Data Reduction, Scale, Nonparametric Tests, Time Series, Multiple Response, Quality Control, and ROC Curve... The Descriptive Statistics sub-menu is also open, listing Frequencies..., Descriptives..., Explore..., Crosstabs..., Ratio..., P-P Plots..., and Q-Q Plots... The 'Descriptives...' option is highlighted. In the background, a data table is visible with a column labeled 't' containing values from 1 to 13.

	t	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	
8	8	
9	9	
10	10	
11	11	
12	12	
13	13	

## OUTPUT FROM SPSS

### Descriptive Statistics

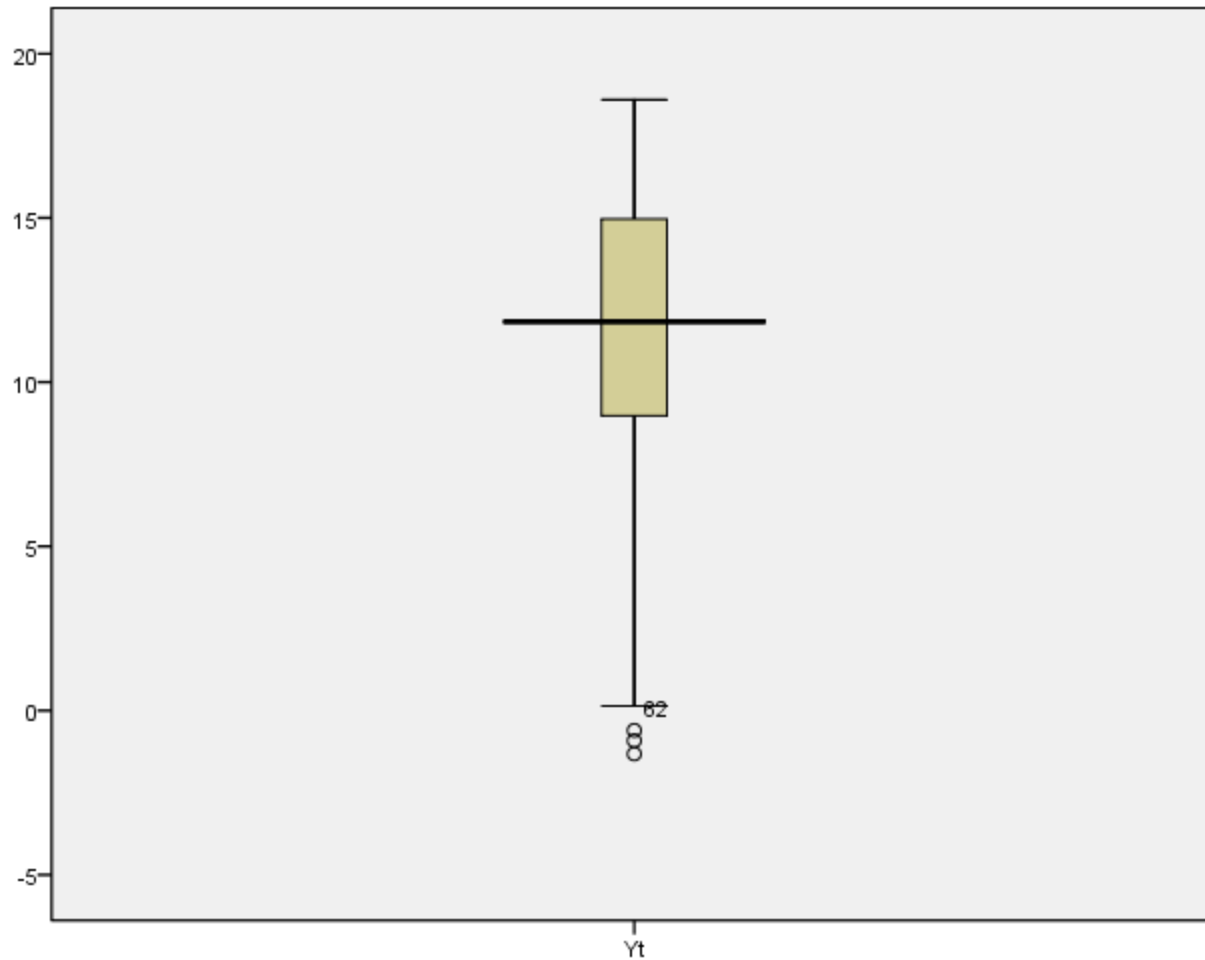
	N	Minimum	Maximum	Mean	Variance
Yt	120	-1	19	11.58	19.323
Valid N (listwise)	120				

# BOX PLOT

The screenshot shows the SPSS Data Editor interface. The title bar reads '\*Untitled2 [DataSet1] - SPSS Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Add-ons, Window, and Help. The Graphs menu is open, displaying options: Bar..., 3-D Bar..., Line..., Area..., Pie..., High-Low..., **Boxplot...**, Error Bar..., Population Pyramid..., Scatter/Dot..., and Histogram... The 'Legacy Dialogs' submenu is also visible, showing the same options. The data table below has columns 't', 'Yt', and 'var'. The data rows are as follows:

	t	Yt	var
1	1	15	
2	2	14	
3	3	15	
4	4	16	
5	5	16	
6	6	14	
7	7	14	
8	8	14	
9	9	16	
10	10	17	
11	11	16	
12	12	17	

## OUTPUT FROM SPSS - BOX PLOT

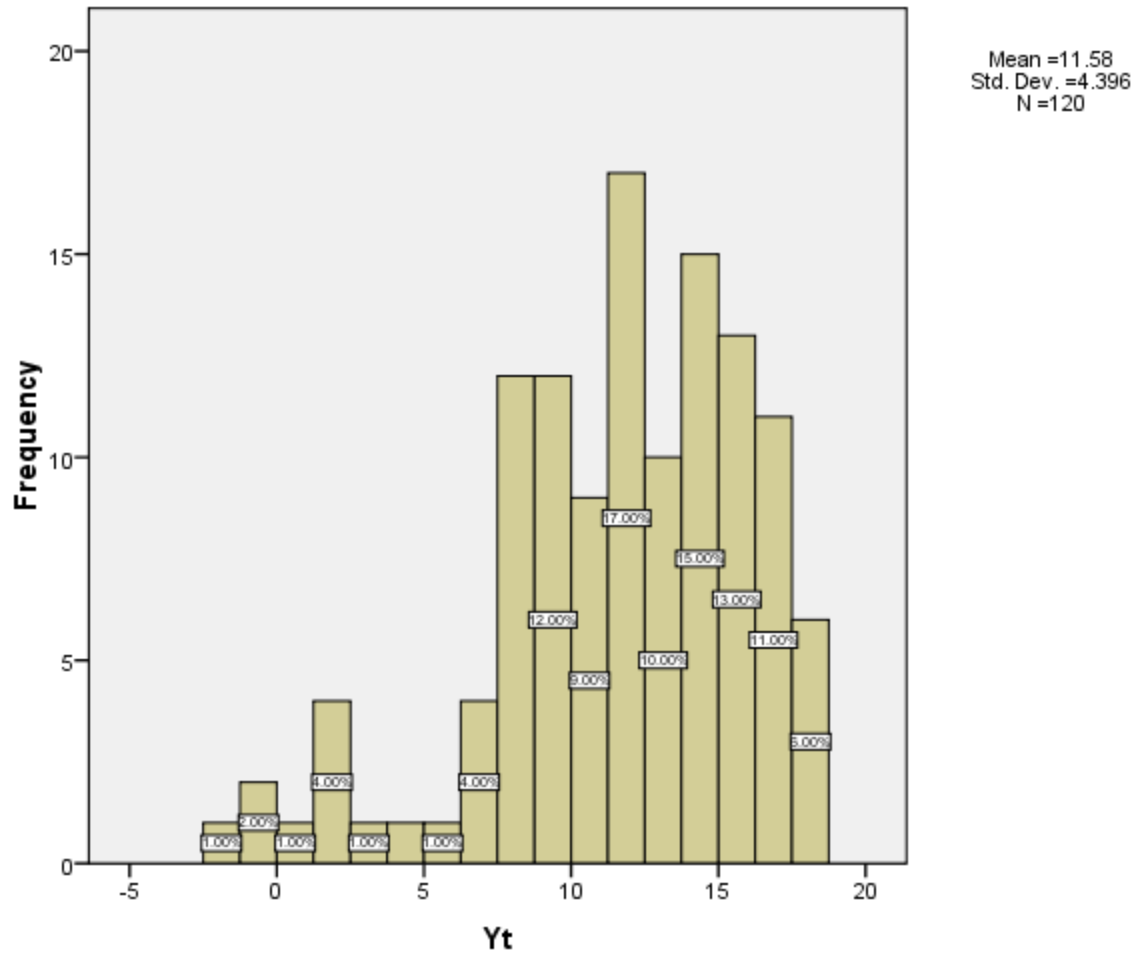


# HISTOGRAM IN SPSS

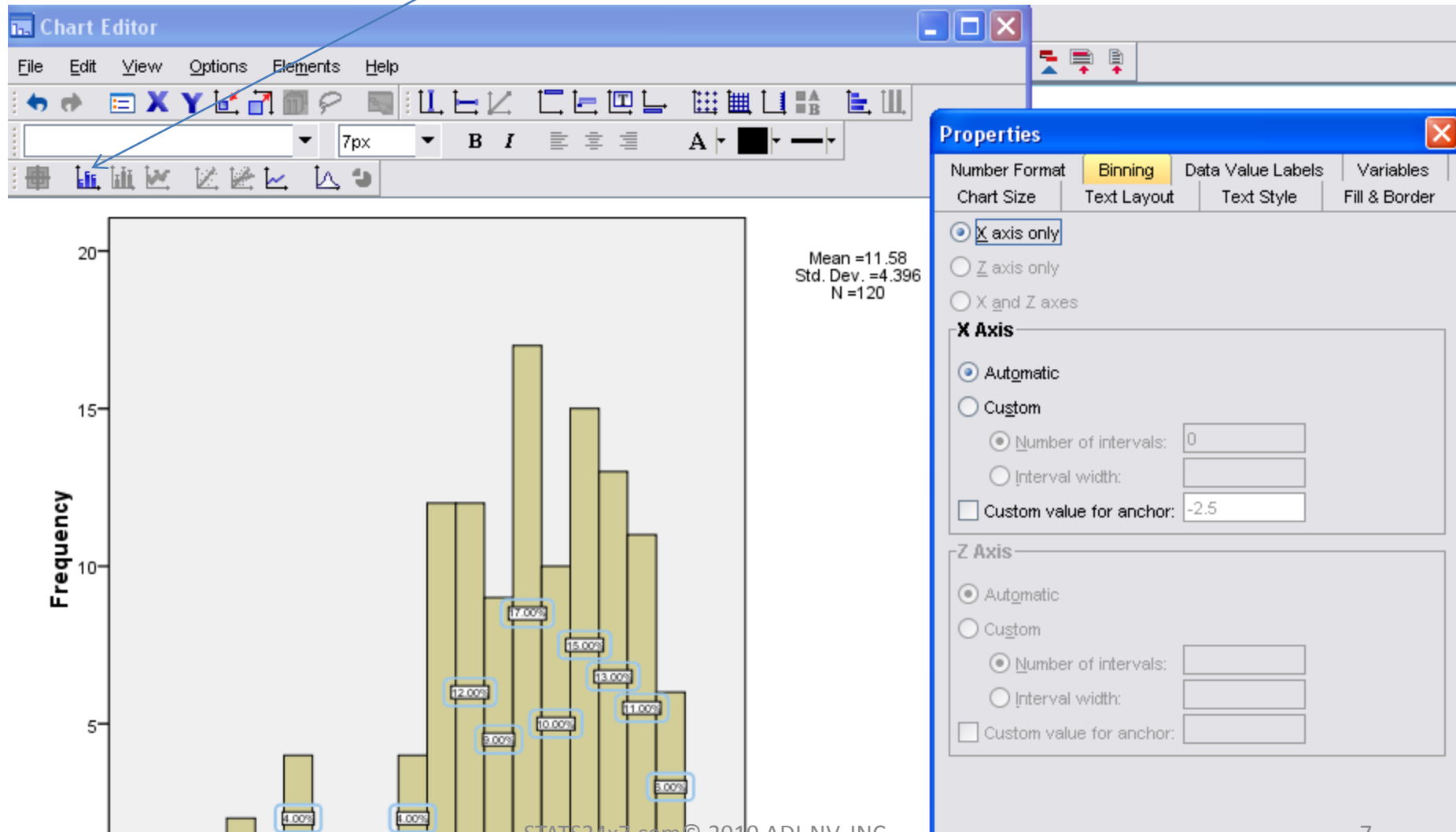
The screenshot shows the SPSS Data Editor interface. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Add-ons, Window, and Help. The Graphs menu is open, displaying various chart options. The 'Histogram...' option is highlighted in blue. Below the menu, a data table is visible with columns 't', 'Yt', and 'var'. The data rows are numbered 1 through 11.

	t	Yt	var
1	1	15	
2	2	14	
3	3	15	
4	4	16	
5	5	16	
6	6	14	
7	7	14	
8	8	14	
9	9	16	
10	10	17	
11	11	16	

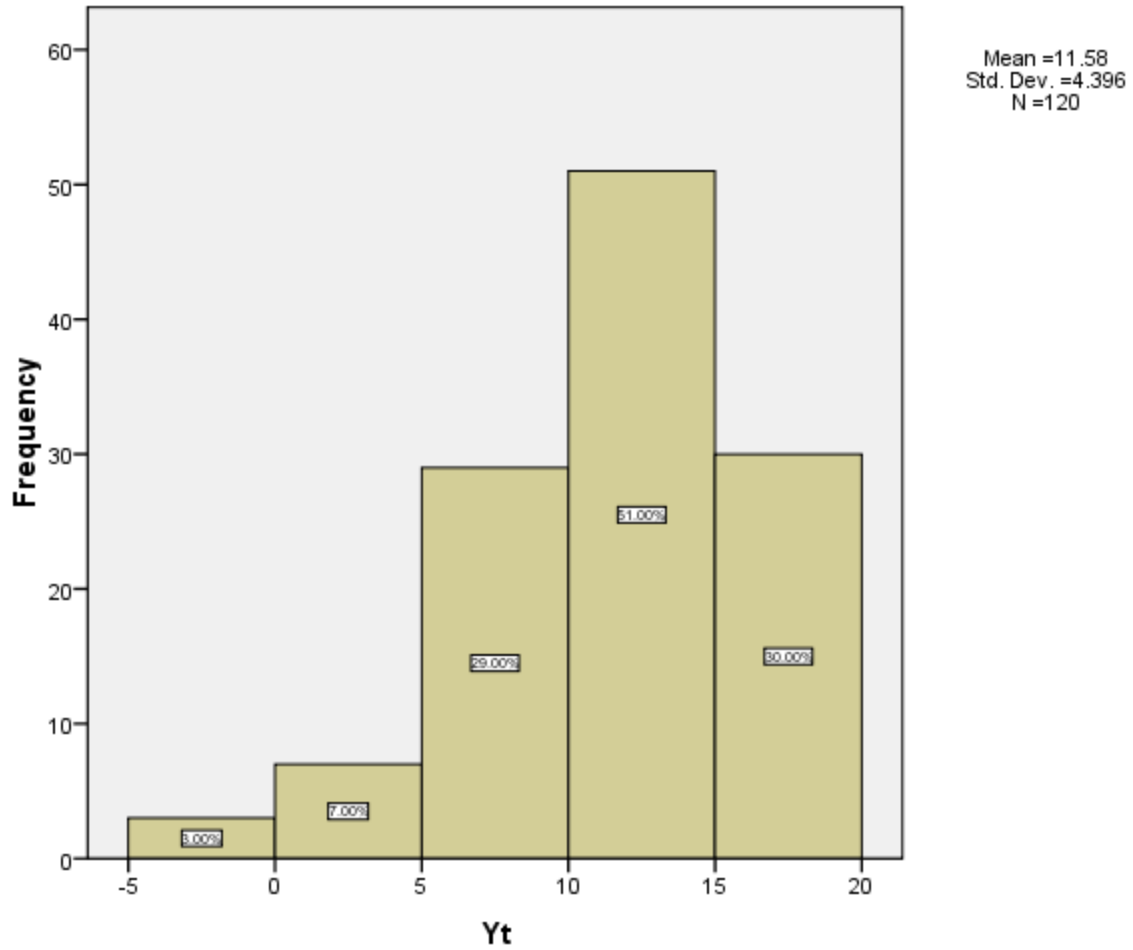
# HISTOGRAM WITH DEFAULT # OF BINS



To change # of class intervals – double click on histogram, which opens the chart editor. Then SINGLE CLICK on blue histogram icon which opens PROPERTIES window. Click on BINNING, then click on Custom, enter # of interval = 5 to obtain graph on next slide.



# HISTOGRAM WITH 5 BINS



# PIE CHART (for QUALITATIVE data):

The screenshot shows the SPSS Data Editor interface. The main window displays a data table with columns V1, V2, and two unlabeled 'var' columns. The data rows are numbered 18 through 28. The 'Graphs' menu is open, and the 'Pie...' option is selected. The 'Pie Charts' dialog box is open, showing the 'Data in Chart Are' section with three radio button options: 'Summaries for groups of cases' (selected), 'Summaries of separate variables', and 'Values of individual cases'. The 'Define' button is highlighted.

	V1	V2	var	var
18		18 MBA		
19		19 BS		
20		20 BS		
21		21 MBA		
22		22 MBA		
23		23 MBA		
24		24 MS		
25		25 MBA		
26		26 MBA		
27		27 MBA		
28		28 MBA		

**Pie Charts**

Data in Chart Are

- Summaries for groups of cases
- Summaries of separate variables
- Values of individual cases

Define Cancel Help

Next choose variable to draw pie chart for -

\*Untitled3 [DataSet2] - SPSS Data Editor

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

33 :

	V1	V2
1		1 MBA
2		2 MBA
3		3 Law
4		4 Law
5		5 MBA
6		6 PhD
7		7 None
8		8 MS
9		9 BS
10		10 BS
11		11 MBA
12		12 BS
13		13 MBA
14		14 MBA
15		15 MS
16		16 Law
17		17 BS
18		18 MBA
19		19 BS
20		20 BS
21		21 MBA

### Define Pie: Summaries for Groups of Cases

**Slices Represent**

N of cases     % of cases  
 Sum of variable

Variable:

Define Slices by:

**Panel by**

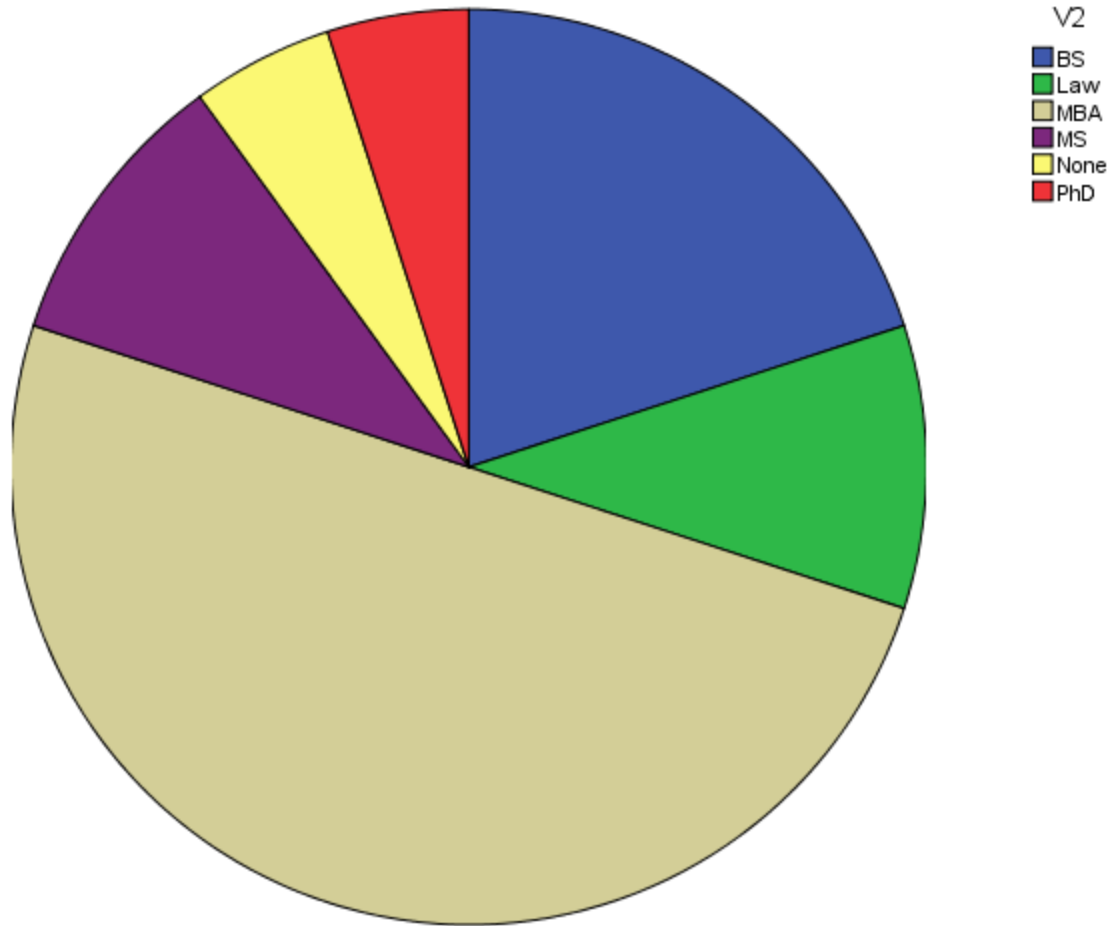
Rows:

Nest variables (no empty rows)

Columns:

Nest variables (no empty columns)

Titles...  
Options...



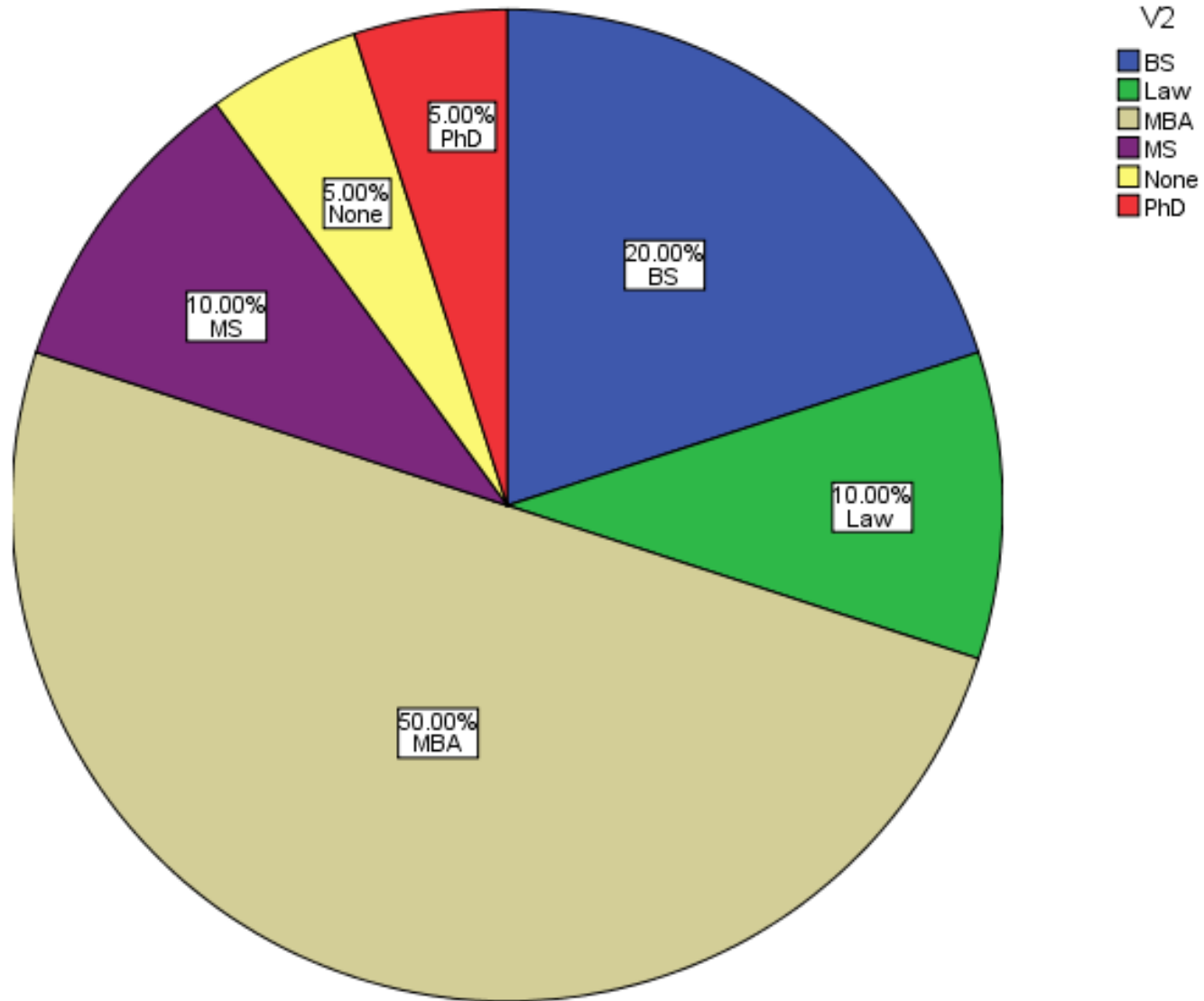
To put data labels on the slices, double click on the pie chart in SPSS OUTPUT.

SINGLE CLICK on

The screenshot shows the Chart Editor interface. The main window displays a pie chart with six segments. A legend on the right identifies the segments by degree: BS (blue, 20.00%), Law (green, 10.00%), MBA (tan, 50.00%), MS (purple, 10.00%), None (yellow, 5.00%), and PhD (red, 5.00%). The Properties panel on the right is open to the 'Data Value Labels' tab. Under the 'Displayed' section, 'Percent' and 'V2' are selected. Under the 'Not Displayed' section, 'Count' is listed. The 'Label Position' section has 'Custom' selected. The 'Display Options' section has 'Suppress overlapping labels' and 'Display connecting lines to label' checked. Buttons for 'Apply', 'Cancel', and 'Help' are at the bottom of the panel.

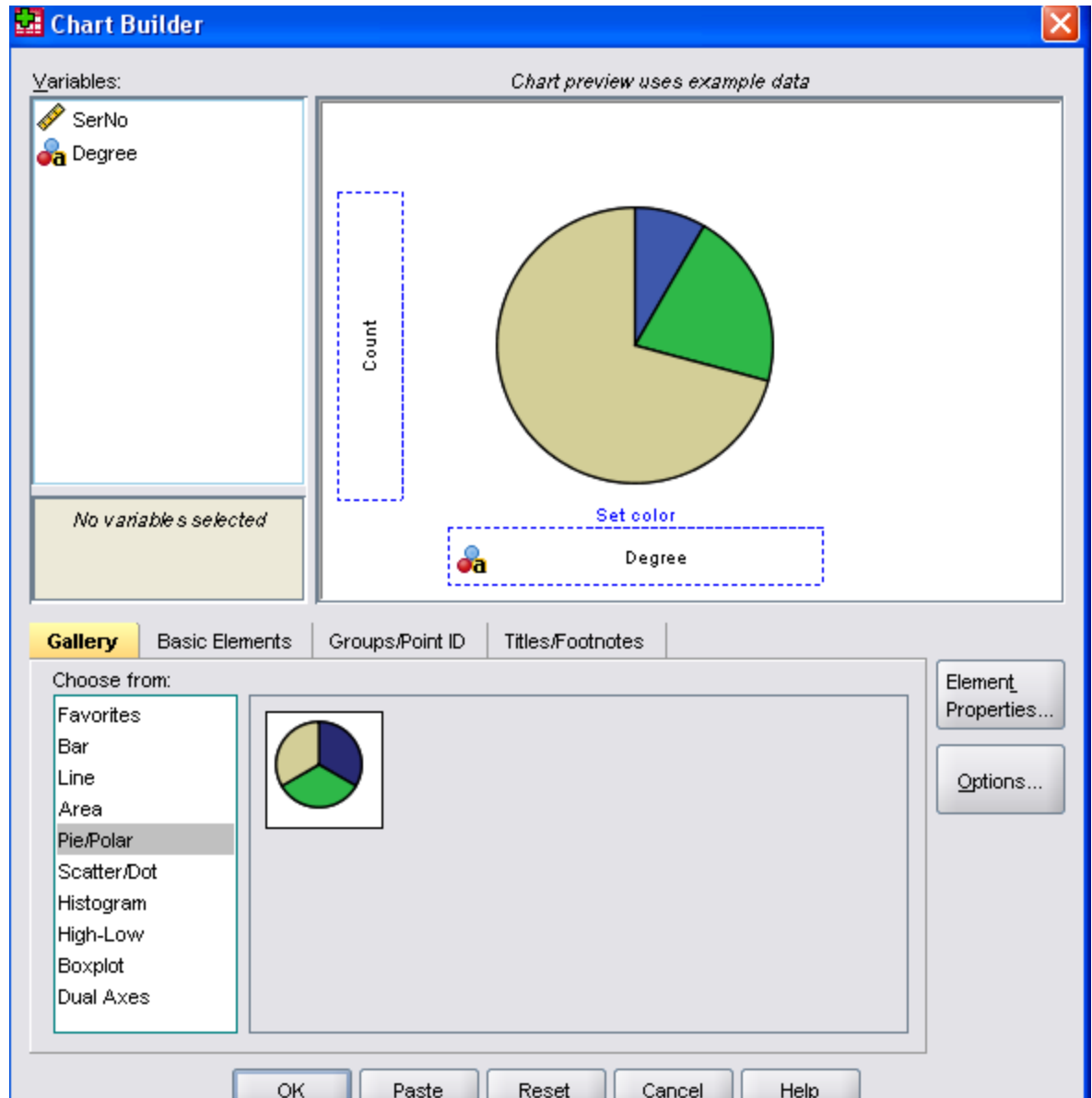
Category	Percentage
BS	20.00%
Law	10.00%
MBA	50.00%
MS	10.00%
None	5.00%
PhD	5.00%

Choose PERCENT and V2 in the DISPLAYED window (on the right) to obtain -



The pie chart for the above example can also be obtained as follows: Graph/Chart Builder/Pie-Polar, then drag pie-chart icon from bottom screen to graph area:

Next drag 'Degree' from Variables list to x-axis as shown in the figure. This will give the pie chart shown on slide 11.



Pie Chart for Table Data: (#2.4/page 47, Text): In the following table, REASON column shows the reasons customers request installation of passenger-side on-off switch for airbags.

Reason	Fequency
Infant	1852
Child	17148
Medical	8377
Infant and Medical	44
Child and Medical	903
Infant and Child	1878
Infant and Child and Medical	135

Graphs/Legacy Dialogs/Pie/select “Values of Individual Cases” then click on DEFINE

Slices represent variable FREQUENCY

The screenshot shows the SPSS Data Editor window with a data table. The table has columns for 'Reason' and 'Frequency'. The data is as follows:

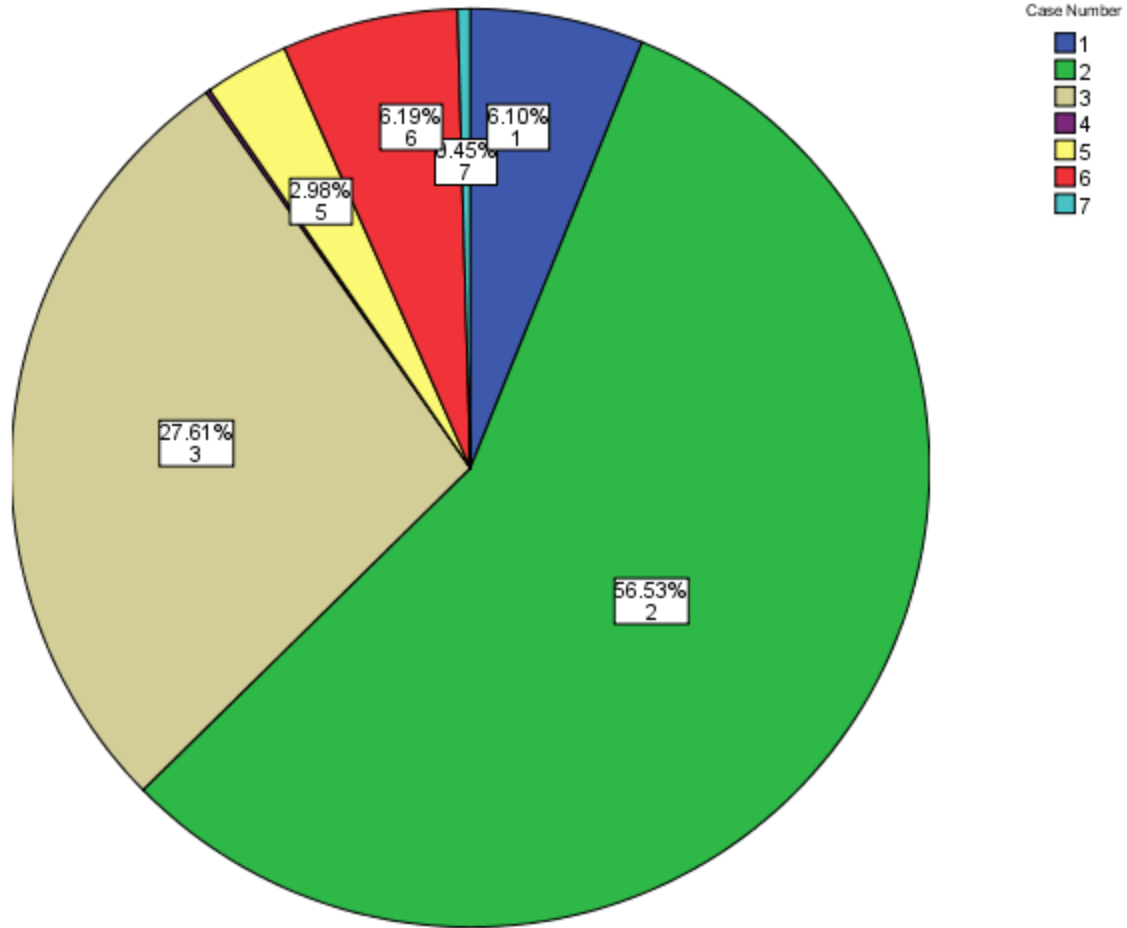
	Reason	Frequency
1	Infant	1852
2	Child	17148
3	Medical	8377
4	Infant and Medical	44
5	Child and Medical	903
6	Infant and Child	1878
7	Infant and Child and Medical	135
8		
9		
10		
11		

The 'Graphs' menu is open, showing 'Legacy Dialogs' > 'Pie...' selected.

The 'Pie Charts' dialog box is shown with the following options:

- Summaries for groups of cases
- Summaries of separate variables
- Values of individual cases

Buttons: Define, Cancel, Help

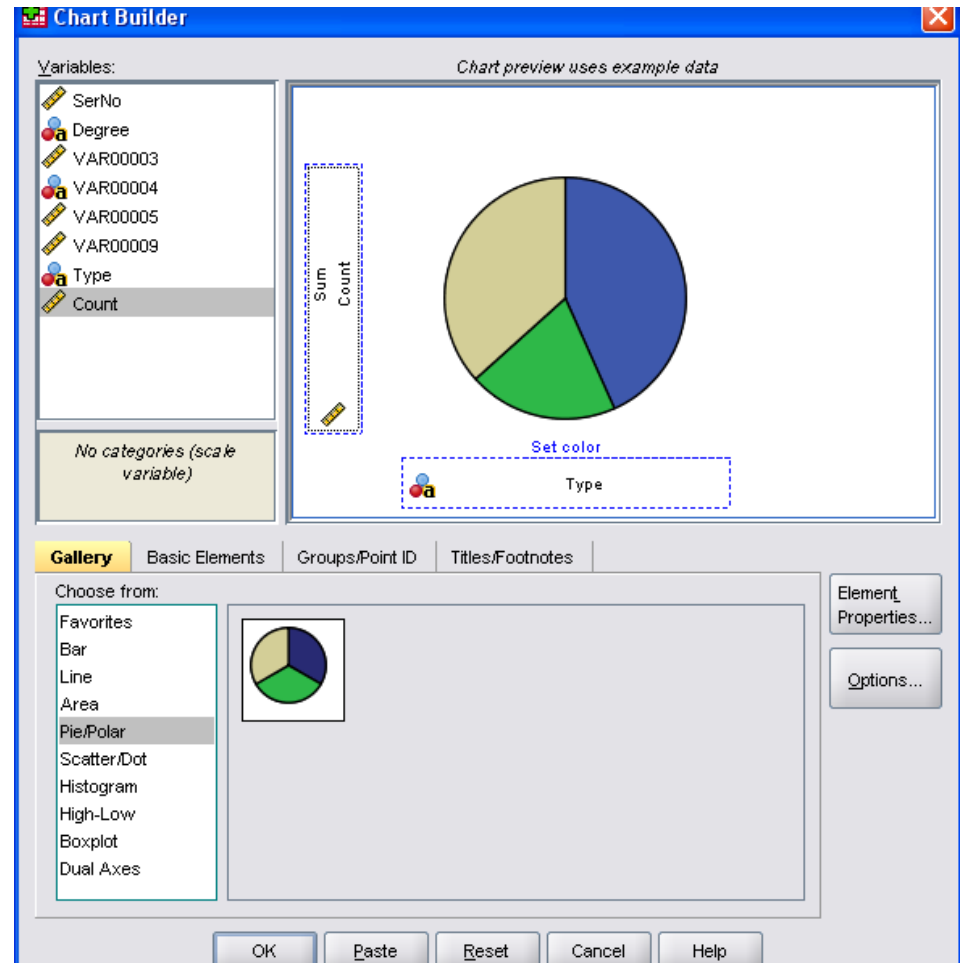


The percentages and Category # are displayed as before (see slide # 12).

Example: Draw a pie chart for the following data:

Type	Count
A	50
B	20
C	35
D	10
E	17
other	33

Graph/Chart Builder/Pie-Polar  
Drag TYPE to X-axis  
and Count to y-axis



Use instructions on slide 11 to show %, Count, and Type on the slices.

