

Week 2 Assignment 2: Working with Minitab Software – Descriptive Statistics

Companion to Assignment 2/Step by Step Instructions Using Minitab Software

Summary of Instructions: For this assignment you will use the data set provided on the assignment page. You will copy this data set into a spreadsheet in Minitab.

Step 1. Retrieve the Data from the Data Set Spreadsheet

Click the magnifying glass in the image of the assignment page for the Data Set. Select the first row in the spreadsheet. These are the column headings. Press and hold the ctrl key on your keyboard and press the letter C. This action copies the selected content to the clipboard of your computer.



Retrieve the Data Set for this assignment.

MCJ5100 W2A2 Data set_031115 [Read-Only]

	A	B	C	D	E	F	G	H
1	Year	Murder/Non-Negligent Manslaughter	Forcible Rape	Robbery	Aggravated Assault			
2	2008	294	750	10603	13132			
3	2009	287	823	11367	13116			
4	2010	269	712	9449	12061			
5	2011	198	771	8054	11869			
6	2012	217	665	9385	11343			
7								

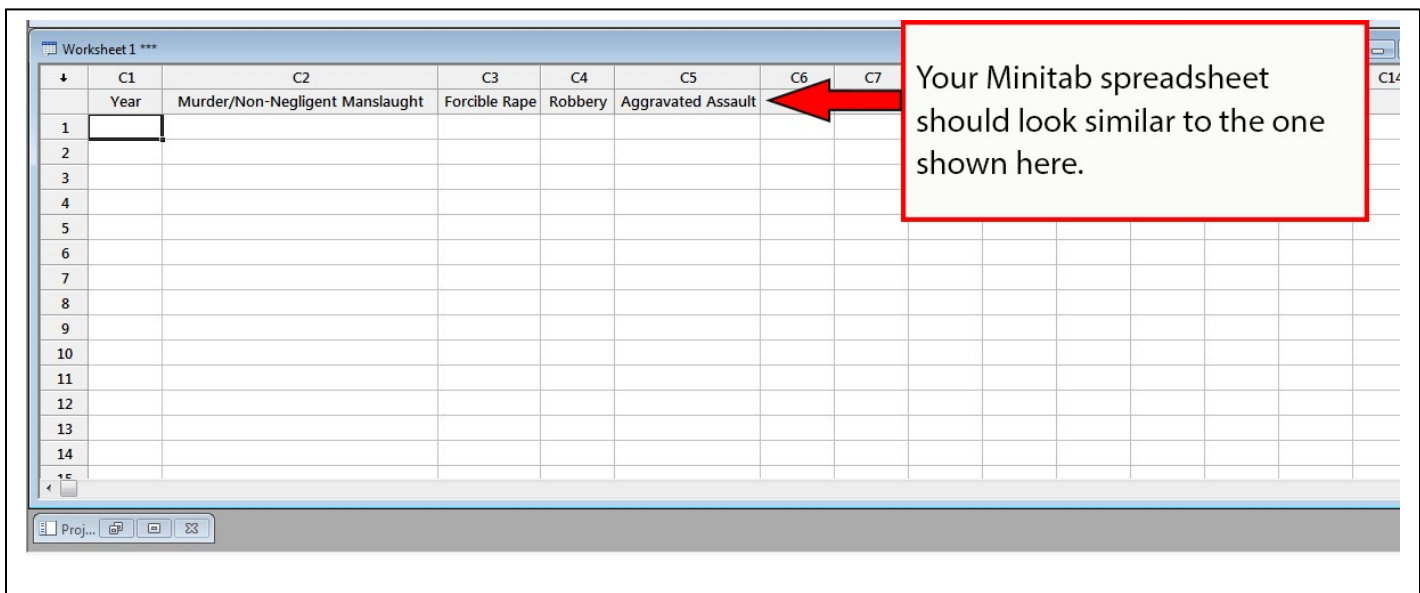
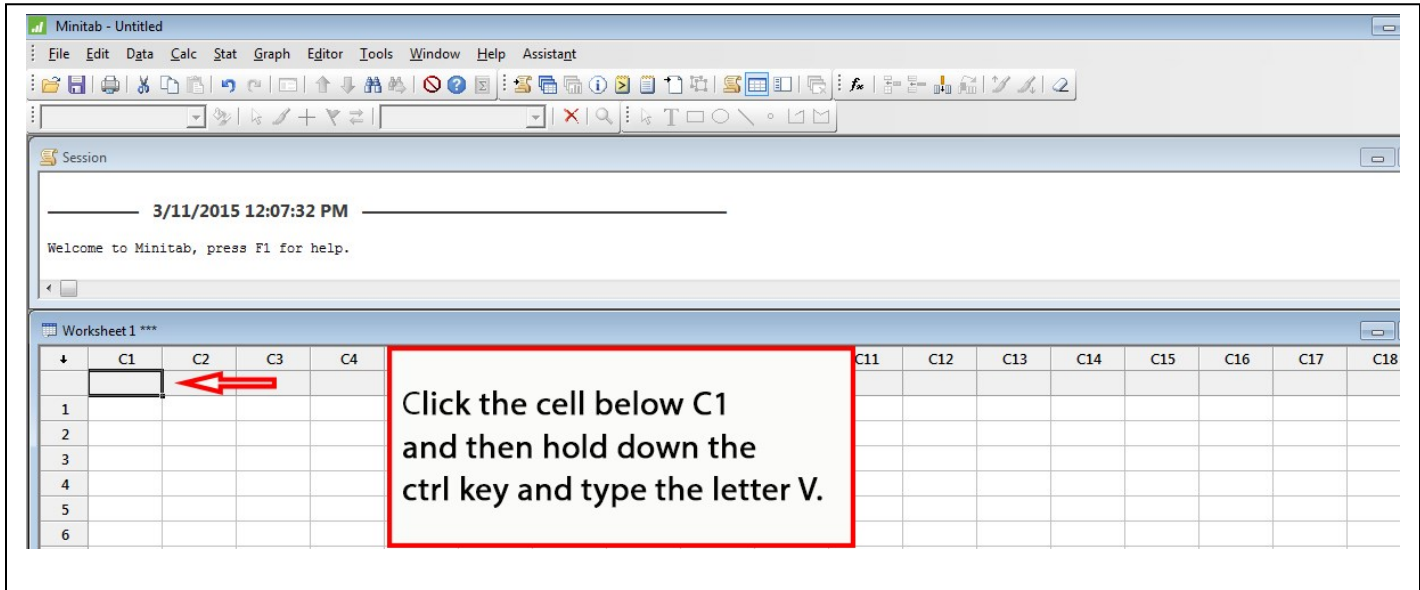
Select the first row. Hold down the ctrl key and type C

Select only the first row in the spreadsheet. Press ctrl + C to copy.

Ctrl + C

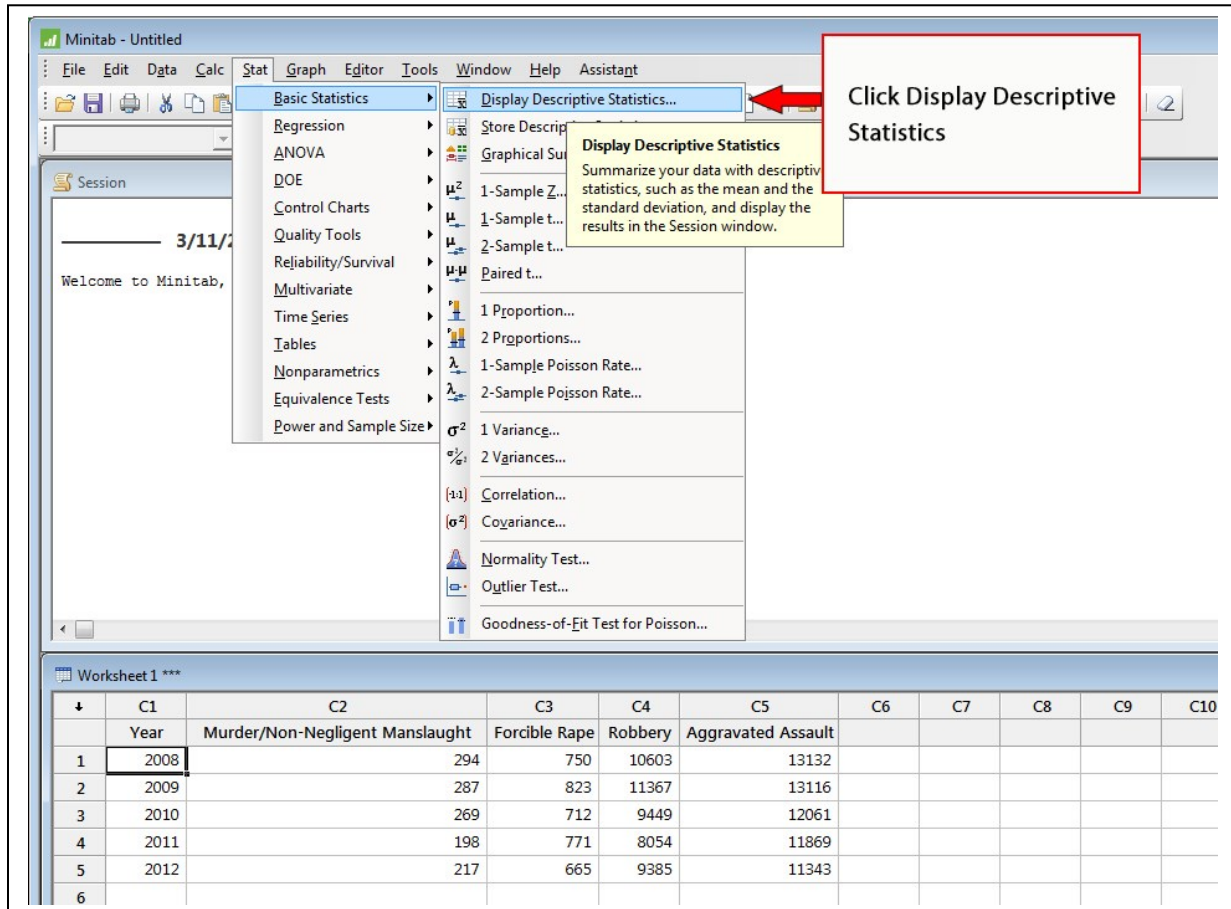
Step 2. Open Minitab and Copy/Paste Column Headers

Open the Minitab software. Depending on your operating system, you may need to click or double click to start the Minitab. Click in the grey cell below cell C1. Hold down the ctrl key on the keyboard and type the letter V. This will paste the column titles from the spreadsheet into Minitab.

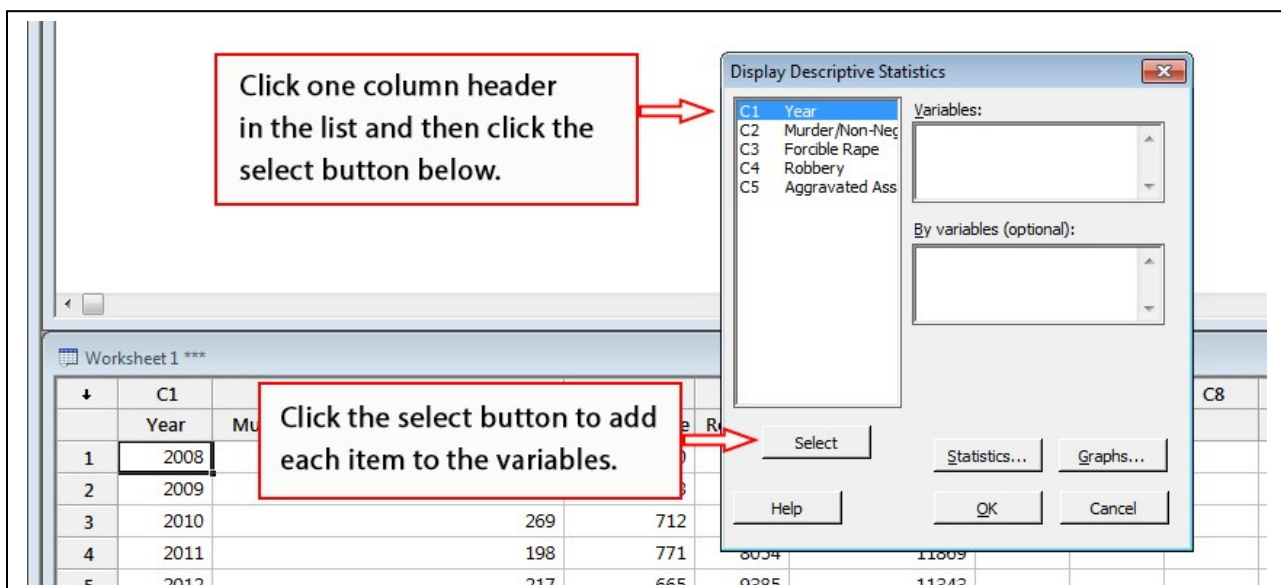


Step 5. Display Descriptive Statistics

Click **Stat** on the menu bar, then **Basic Statistics**, then click on **Display Descriptive Statistics**.

**Step 6. Display Descriptive Statistics**

Select one column header and add it to the variables list by clicking the select button. Repeat until all column headings have been added.



After all column headings have been added to the variables list, your screen should look like this:

All column headings should now be in the Variables box.

	C1	C2	C3	C4	C5	C6	C7	C8
	Year	Murder/Non-Negligent Manslaughter	Forcible Rape	Robbery	Aggravated Assault			
1	2008		294	750				
2	2009		287	823				
3	2010		269	712				
4	2011		198	771		8034	11809	
5	2012		217	665		9385	11343	

Step 7. Select the Statistics Button

Select the **Statistics** button. In this menu you check only the boxes for the data you want shown in your results output (Session Window). For this exercise *check the same selections that are checked in the graphic below*, then select **OK** for both menus to get your output.

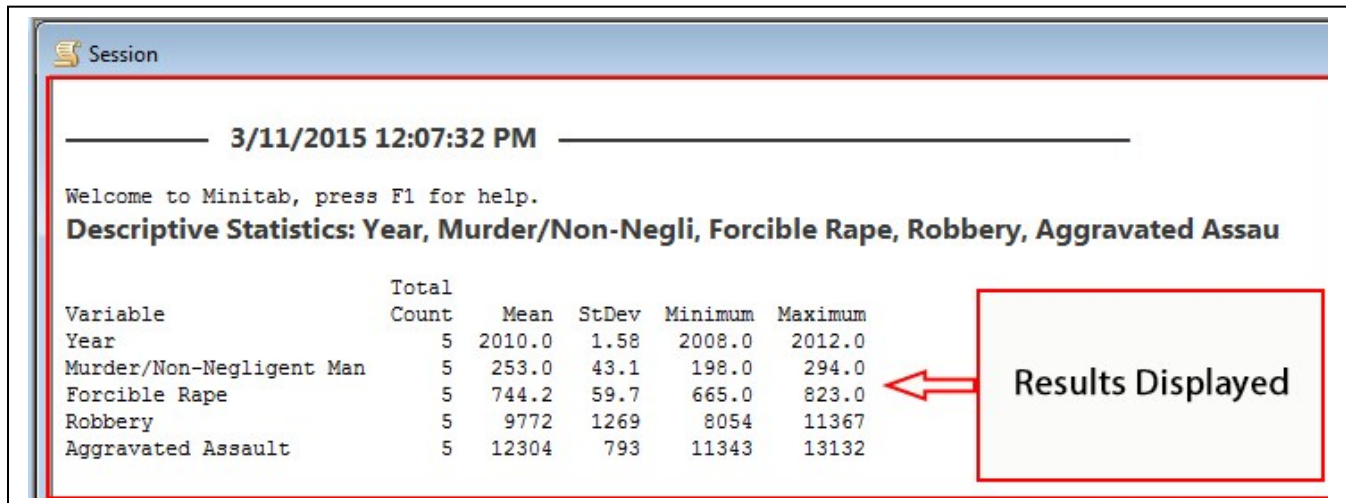
1. Click the Statistics button.

2. Select all the options shown in this graphic and click OK on both dialog boxes.

Display Descriptive Statistics: Statistics		
<input checked="" type="checkbox"/> Mean	<input type="checkbox"/> Trimmed mean	<input type="checkbox"/> N nonmissing
<input type="checkbox"/> SE of mean	<input type="checkbox"/> Sum	<input type="checkbox"/> N missing
<input checked="" type="checkbox"/> Standard deviation	<input checked="" type="checkbox"/> Minimum	<input checked="" type="checkbox"/> N total
<input type="checkbox"/> Variance	<input checked="" type="checkbox"/> Maximum	<input type="checkbox"/> Cumulative N
<input type="checkbox"/> Coefficient of variation	<input type="checkbox"/> Range	<input type="checkbox"/> Percent
		<input type="checkbox"/> Cumulative percent
<input type="checkbox"/> First quartile	<input type="checkbox"/> Sum of squares	Check statistics
<input type="checkbox"/> Median	<input type="checkbox"/> Skewness	<input checked="" type="radio"/> Default
<input type="checkbox"/> Third quartile	<input type="checkbox"/> Kurtosis	<input type="radio"/> None
<input type="checkbox"/> Interquartile range	<input type="checkbox"/> MSSD	<input type="radio"/> All
<input type="checkbox"/> Mode		

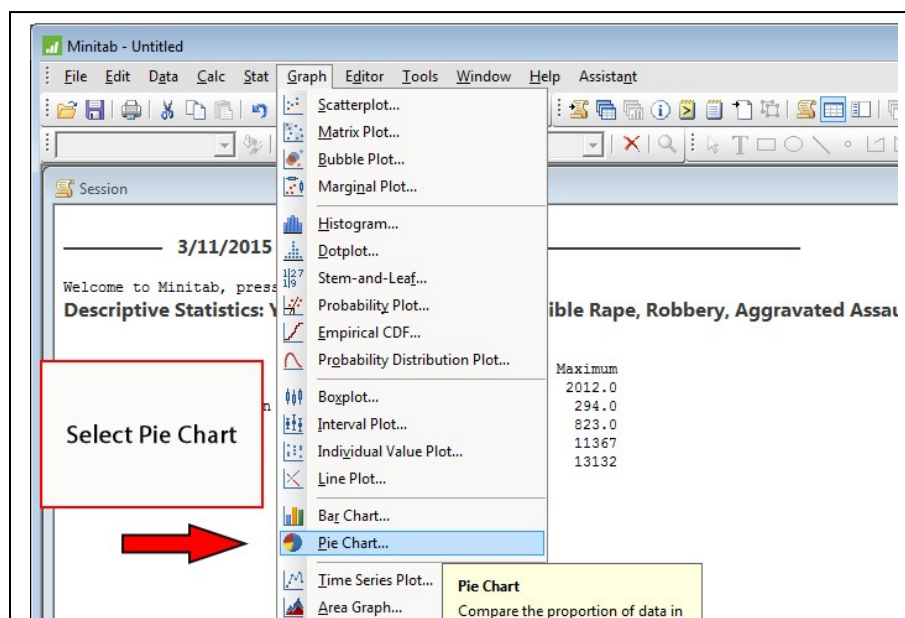
Step 8. Results are displayed in the Session Window

The **Session Window** displays the descriptive statistics data output for your analysis

**Student Response - Analysis of Data**

Write your initial analysis of these violent crimes looking at the data set year by year to draw your hypothesis. Then use the output from this Minitab exercise to compare each crime using the Mean, Standard Deviation, Minimum, and Maximum data. Check your reading for the week for more information on how to apply this data in your analysis.

In addition to your written analysis support your findings by creating and recoded variables to produce a **pie chart** illustrating the variances in crimes 2008 and 2012.

Step 9. Producing a Pie Chart

Step 9 A - Setting Pie Chart Options

Select the **Chart values from a table** option and click in the field for **Categorical variable**.

1. Click the Chart values from a table option.

2. Click in this field to add the column heading.

The dialog box shows the 'Chart values from a table' option selected. The 'Categorical variable' field is empty, and the 'Summary variables' list is also empty. The 'Select' button is visible at the bottom left of the dialog.

Variable	Count	Mean	StDev	Minimum	Maximum
Year	5	2010.0	1.58	2008.0	2012.0
Murder/Non-Negligent Man	5	253.0	43.1	198.0	294.0
Forcible Rape	5	244.2	59.7	165.0	323.0
Robbery					
Aggravated Assault					

	C1	C2	
	Year	Murder/Non-Negligent Manslaughter	
1	2008		294
2	2009		287
3	2010		269
4	2011		198
5	2012		217
6			

Step 9 B – Click C1 Year and click the Select button. This action adds Year to the Categorical variable.

1. Select the Year (C1)
2. Click the Select button

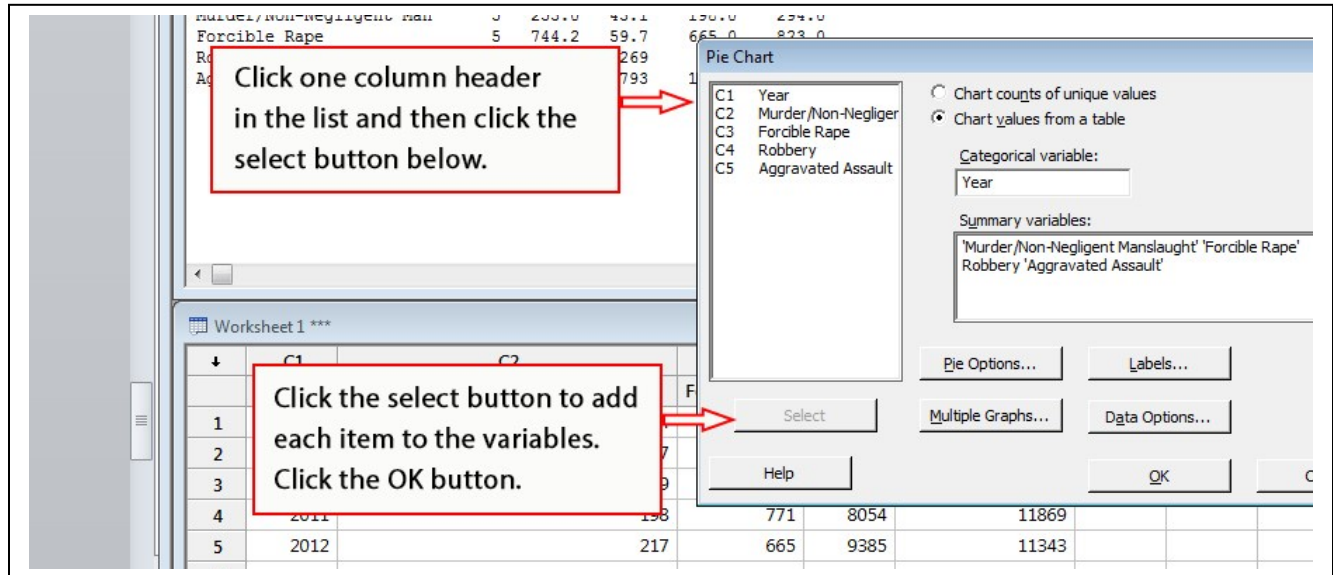
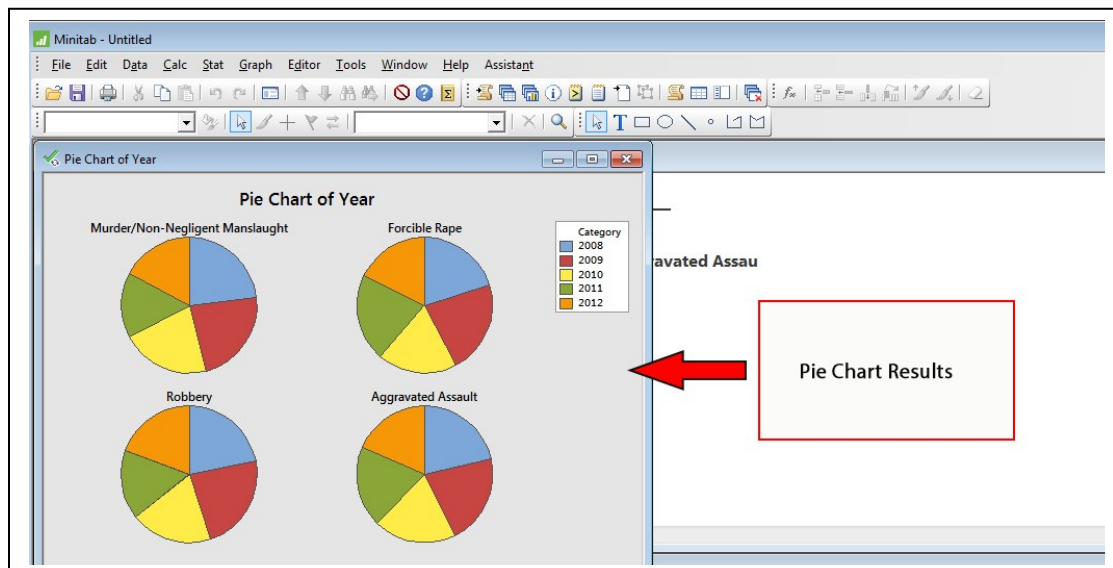
Year is populated in Categorical variable

The 'Pie Chart' dialog box shows the 'Chart values from a table' option selected. The 'Categorical variable' field now contains 'Year'. The 'Summary variables' list is empty. The 'Select' button is visible at the bottom left of the dialog.

	C1	C2	C3	C4	C5
	Year	Murder/Non-Negligent	Forcible Rape	Robbery	Aggravated Assault

Step 10. Add column headings to the Summary variable field

Click each column heading and click the select button to add each column heading to the Summary variable field. Click the **OK** button

**Step 11. The Pie Chart results**

Experiment with variables in other Graphs

The Graph menu lists many chart options. Now that you know how to find the list of Graphs, try some other types of graphs, bar chart, histogram, line plot, etc., using different variables from your table of data.