Descriptive statistics for two-way tables in SPSS

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The **Crosstabs**... tool in SPSS can be used to obtain joint, marginal, and conditional distributions from two-way tables. It will also create clustered bar charts. The following instructions assume your data are categorical. (If your data are scale, and if this for FDMath 221, 222, 223, or 224, then a test of homogeneity is probably not what you really need, so go back and double-check.)

1. Open your data file or type in your data. **If you have to enter the data by hand, please see the document **Entering two-way tables in SPSS** (click here) for instructions.**

2. In the **Variable View**, give your variables names, and make sure the **Type** is correct. Add Labels if you want, and take particular care of the level of **Measurement**. For example, if one of your variables is nominal, please make sure the **Measurement** column says **Nominal**; if ordinal, then **Ordinal**.

3. In the **Analyze** menu, click on **Descriptive Statistics**. A submenu will appear.

4. In the submenu, click **Crosstabs**... The **Crosstabs** dialog will appear.

5. In the **Crosstabs** dialog, select the name of one of your variables and click the arrow that points to the **Column(s):** box. The name of your variable will move into the **Column(s):** box. Select the name of the other variable of interest, and click the arrow that points to the **Row(s):** box. The name of your variable will move from the one box to the other. **Note:** When **Crosstabs** makes a clustered bar chart, it will cluster the bars using the values in your row variable.

6. To select the cell statistics you want,...
   
   (a) Click the **Cells**... button. The **Crosstabs: Cell Display** dialog will appear.
   
   (b) Click the check boxes next to the counts and percentages you want. (Examples: If you check **Observed**, and **Column**, you’ll get the observed column counts and percentages. If you click **Observed**, **Expected**, and **Column**, you’ll get both the observed column counts and percentages and the expected column counts and percentages.)
   
   (c) Click **Continue**. SPSS returns you to the **Crosstabs** dialog.

7. If you want a clustered bar chart, put a check mark next to **Display clustered bar charts**.

8. If you **don’t** want the table of frequencies, put a check mark next to **Suppress tables**.

9. Click **OK**. The **Crosstabs** dialog closes, and the **Output** or **Viewer** window opens.

10. Reading the output:

    (a) The first thing in the output is the **Case Processing Summary** table. **CHECK THIS TABLE** to make sure all your data were valid. If not, go repair your data and repeat the above steps.

    (b) Next, if you didn’t suppress it, is a table of frequencies, except SPSS calls it the **Crosstabulation** table. This table has the observed or expected counts or percentages, depending on the choices you made in the **Crosstabs: Cell Display** dialog. (The names of your variables will be in the title of the table, separated by an asterisk [*]. This is an old-fashioned way of indicating that the two variables are being analyzed together.)
(c) Finally, if you asked for clustered bar charts, they will appear last. There will be a cluster of bars for each value in your row variable.

As always, if you have questions, please ask them!