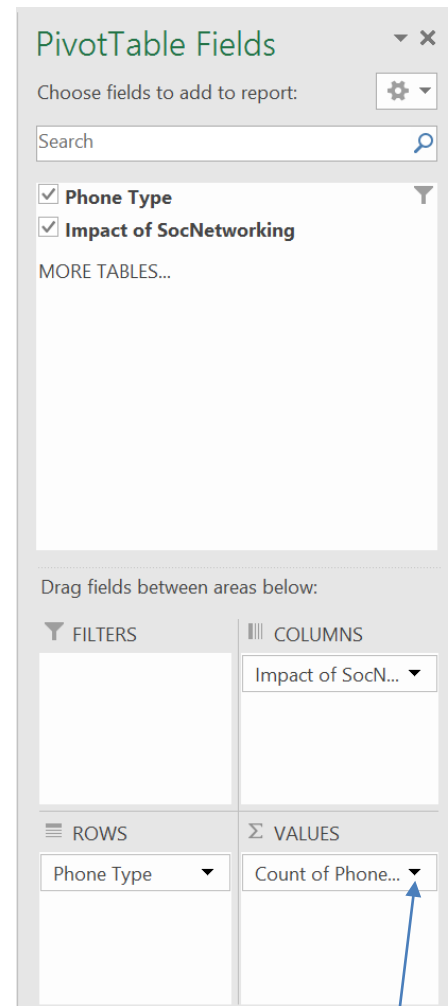


## Two-Way Contingency Tables and Pie Charts for Conditional Distributions

You should already have the Excel tutorial file open.

1. Select the columns containing the Phone Type and Impact of SocNetworking data (including the variable names) and copy them into a new sheet.
2. Highlight both columns of data and select the Insert Tab
3. Select Pivot Table
4. In the interface, choose 'Existing Worksheet' and enter a range of cells to put the table in (for example, d2:h12), and click OK
5. In the Pivot Table interface that appears in the right side of Excel, drag and drop the Phone Type name into the 'Rows' box.
6. In the interface, drag and drop Impact of SocNetworking into the 'Columns' box
7. Drag and drop Phone Type into the 'Σ Values' box. NOTE: if in your Pivot Table interface your "Values" do not read "Count of variable," click on the triangle (*i* on a Mac) in the box and select "Value field settings." Select "count" from the menu then click ok.



Click here to change your values to "count," if they are not already.

We do not want to include missing values so we need to remove the blank column/row in the table, you can remove these cells from the table display.

8. In the Pivot Table (not the interface to the side) click on the column labels arrow
9. Uncheck the ' blank' box and click OK

The final output should appear as follows once you have completed steps 1-9:

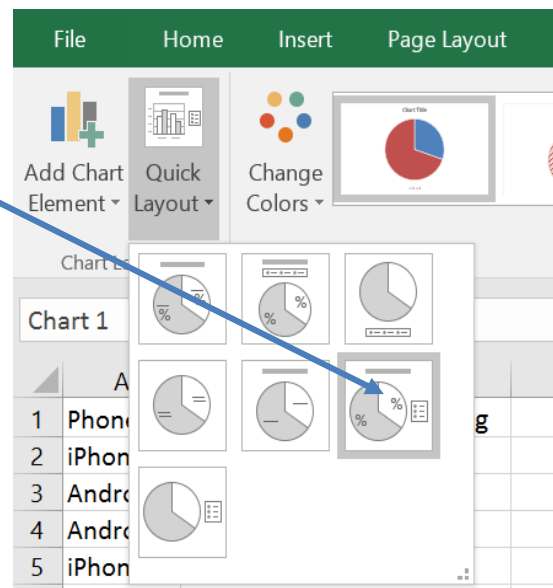
Count of Phone Type		Column Labels			
Row Labels		better	no impact	worse	Grand Total
Android smartphone	13	9	11	33	
iPhone	30	9	4	43	
Grand Total	43	18	15	76	

Click here to remove "blank" cells

Next, we will create charts using the above table.

### Creating Pie Charts for Conditional Distributions

10. Copy the Pivot Table (excluding the top row) and paste it in a new location.
11. Select the Android and iPhone values for better responders from the new table you pasted.  
Then, go to 'Insert' and select the pie chart image and select the first option under '2D.'
12. To add labels to the cart right click on the chart body and go to 'Select Data.' Then under 'Horizontal (Category) Axis Labels' choose 'Edit' (on a Mac just click in the box) and select the cells containing the labels "Android smartphone" and "iPhone" from the table.
13. To adjust the chart click on the chart and from the 'Chart Tools' tab select 'Design.' Then, click on 'Quick Layout' and select the layout with the percentages and the data labels on the right.
14. To add manually or adjust the location of the percentage data labels click on 'Add Chart Element' and choose the option under 'Data Labels' to move the percentages to the 'Outside End.'
15. Change the chart title by double clicking on the title and changing it to "Impact is Better by Phone Type."
16. Repeat steps 11-14 for the other Impact of SocNetworking groups.



Here are the results of the above steps:

