

### Making Qualitative Bar Charts from Frequency Tables using Minitab

1. Put your qualitative variable values under C1 and provide a label to the categories in the gray box below C1.
2. Put your frequency values under C2 and label that column "Frequency" in the gray box below C2.
3. Click on "Graph" and then choose "Bar Chart".
4. From the drop down list under "Bars represent" choose "Values from a Table".
5. Highlight the "Simple" graph under the heading "One Column of Values".
6. Next click on "OK".
7. Under "Graph Variables", select C2.
8. Under "Categorical Variable", select C1.
9. Click on "Scale", click on the "Gridlines" tab, click on the box next to "Y major ticks" and click on "OK". This step will add horizontal gridlines to the graph.
9. Click on the "Labels" box.
10. Under "Title", type in a description of your data.
11. Under "Subtitle 1", state that you created the graph.
12. Click on "OK".
13. If you have a Microsoft Word document open, you can right click on the graph and choose "Send Graph to Microsoft Word" and the bar chart will appear in your Word document. Otherwise, click in the gray area outside the graph. Choose the "Edit" tab at the very top of the window and then choose "Copy Graph". You now will be able to copy your bar chart into a text document.

**Example** (Navidi & Monk, *Elementary Statistics*, 2<sup>nd</sup> edition, #23 p.46): The following table shows reasons for admission to a hospital.

Reason	Frequency (thousands)
Congestive heart failure	990
Coronary atherosclerosis	1400
Heart attack	744
Infant birth	3800
Pneumonia	1200

Open Minitab and put the reasons under C1 and the frequencies in thousands under C2 as shown at left.

↓	C1-T	C2	C3
	Reason	Frequency (thousands)	
1	Congestive heart failure	990	
2	Coronary atherosclerosis	1400	
3	Heart attack	744	
4	Infant birth	3800	
5	Pneumonia	1200	

Click on "Graph" and then click on "Bar Chart". Choose "Values from a table" from the drop down box under "Bars represent". Make sure "Simple" is selected under "One column of values" and then click on "OK".

Next click in the box under "Graph variables:", choose C2 from the box on

the left and click on the "Select" button. Click in the box under "Categorical variable:", choose C1 from the box on the left and click on the "Select" button.

Now click on “Scale” and click on the “Gridlines” tab. Click on the box next to “Y major ticks” and then click on “OK”.

Click on the “Labels ...” button. Enter a description of the data like “Reasons for Hospital Visits” under “Title”, and enter “created by *your name*” under “Subtitle 1”. Click on the “OK” button in that window and click on the “OK” button in the window below that one.

The bar chart will now appear. You may change the axis title or the axis labels at this point. If you have a Word document open, you can right click on the graph and by clicking on “Send Graph to Microsoft Word”, a copy of the graph will be sent to your word document. If you are creating a document in some other program, right click on the gray area and then choose “Copy Graph”. Now you can paste the graph into the document you are currently creating.

