



Graphical Display of Statistics

- Two common ways to graphically display statistical information is through the use of bar charts and pie charts.
- A bar chart graphically displays a bar graph where the lengths of the bars are proportional to the values that they represent.

Sample CS120 Dataset

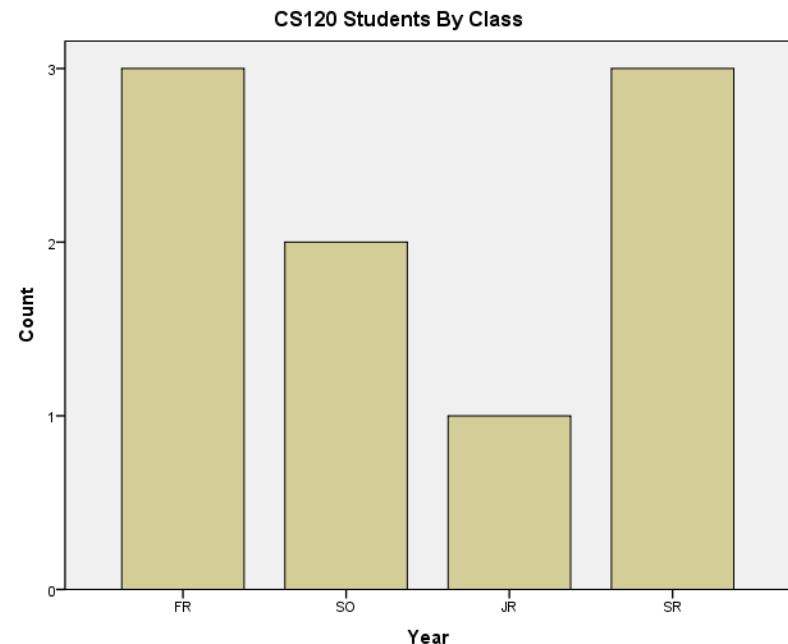
- Consider the following CS120 class information:

ID	Year	Age
0001	FR	18
0002	FR	18
0003	SR	22
0004	JR	22
0005	SO	19
0006	FR	19
0007	SR	23
0008	SO	19
0009	SR	22

If this data was in SPSS,
what would be the Type
and Measure for each
variable?

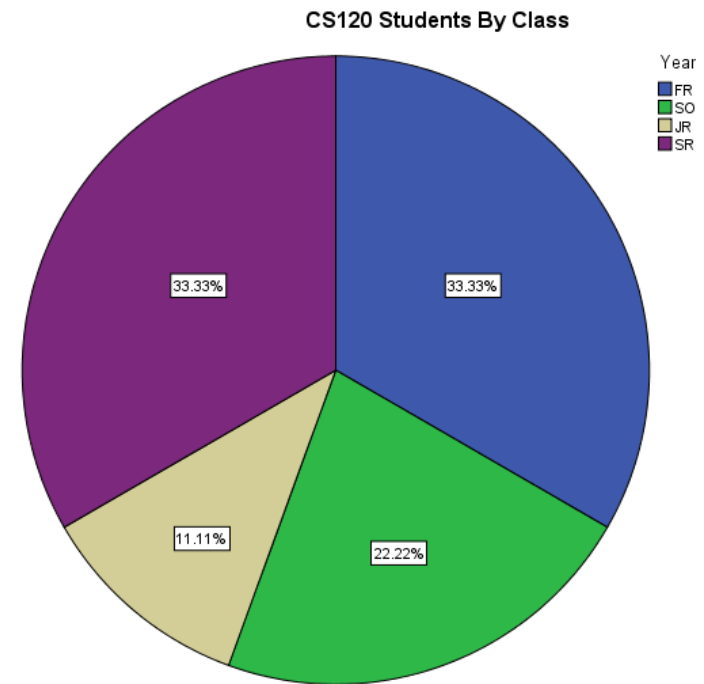
Bar Chart

We could take the above information and show using a bar chart a graphical representation of the number of students that are FR, SO, JR, and SR.



Pie Chart

- Notice with a pie chart we get a better visualization of the frequency of occurrence as a percent. The amount of arc in the above example is proportional to the represented quantity.



Exercise

Copy CS120.sav from CS 130 Public to your Desktop.

- Let's discuss the variable definitions and data.
- Create a **Bar Chart** to show how many students in each Year took CS 120.
- Create a **Pie Chart** to show how many students in each Year took CS 120.
- Create a Word document called **graphs.docx** that has both graphs in the document properly labeled and looking professional. Let me see the results.
- Get this data into Excel (without re-typing the data) and build the two charts above.

More SPSS practice

- Compare the mean, standard deviation, and median for age by year
- Add the Report to the Word document from earlier

Report

Age	Mean	N	Std. Deviation	Median
Year				
FR	18.33	3	.577	18.00
SO	19.00	2	.000	19.00
JR	22.00	1	.	22.00
SR	22.33	3	.577	22.00
Total	20.22	9	1.986	19.00