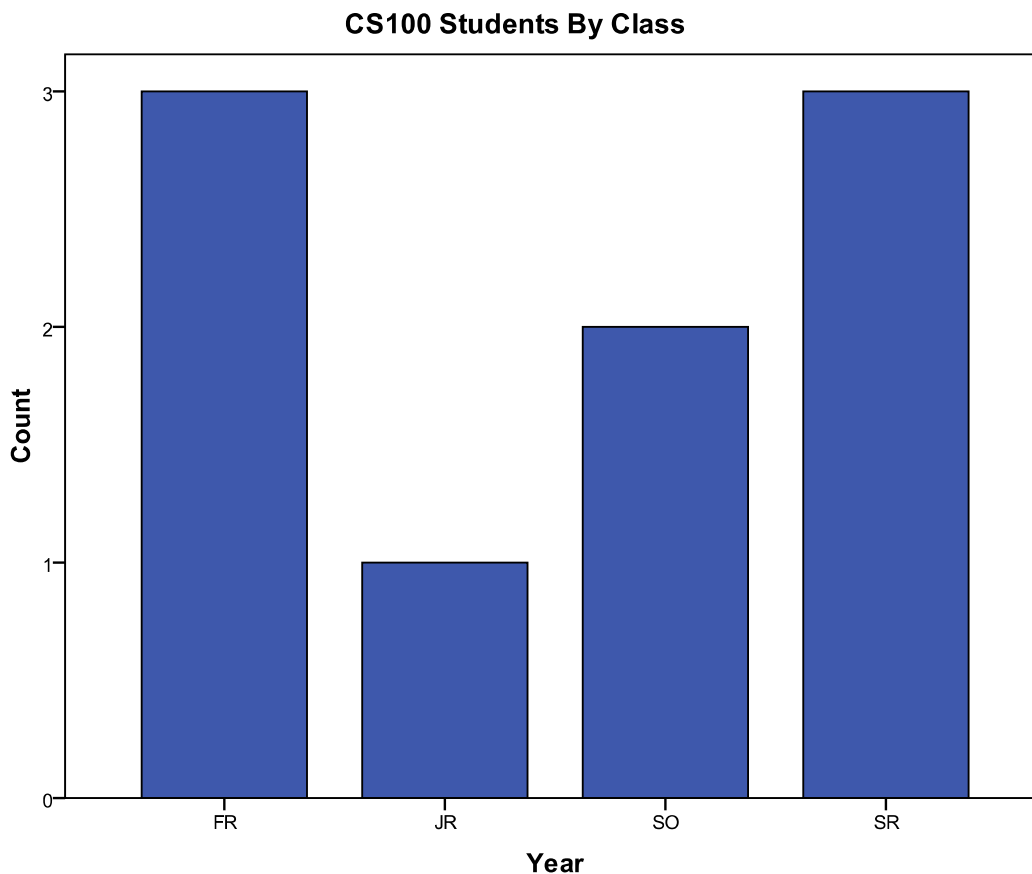# SPSS & Graphical Displays of Statistics

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.

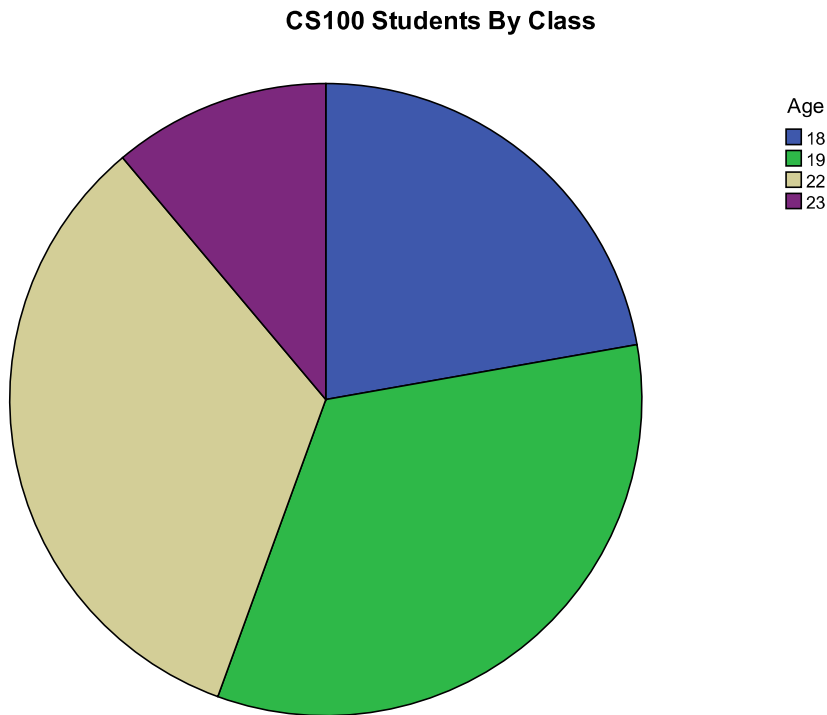Consider the following CS100 class information:

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

We could take the above information and show using a bar chart a graphical representation of the number of students that are between 18 and 23 as follows:

CS100 Students By Class

Question: Using our class as an example, come up with a dataset that contains a variable that would be <u>useful</u> if displayed as a bar chart.

_____

A pie chart also displays a count of values as follows:

CS100 Students By Class

Age
- 18
- 19
- 22
- 23

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. Pie charts tend to be used quite often in the business world but not so widely used in the scientific world. From a scientific viewpoint it is hard to compare information across charts or to even compare specific sections within a given chart; nonetheless, pie charts can still be of value.