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          If this data was in SPSS,
0002        FR            18          what would be the Type
0003        SR            22          and Measure for each
0004        JR            22          variable?
0005        SO            19
0006        FR            19
0007        SR            23
0008        SO            19
0009        SR            22
```

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of Statistics

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.
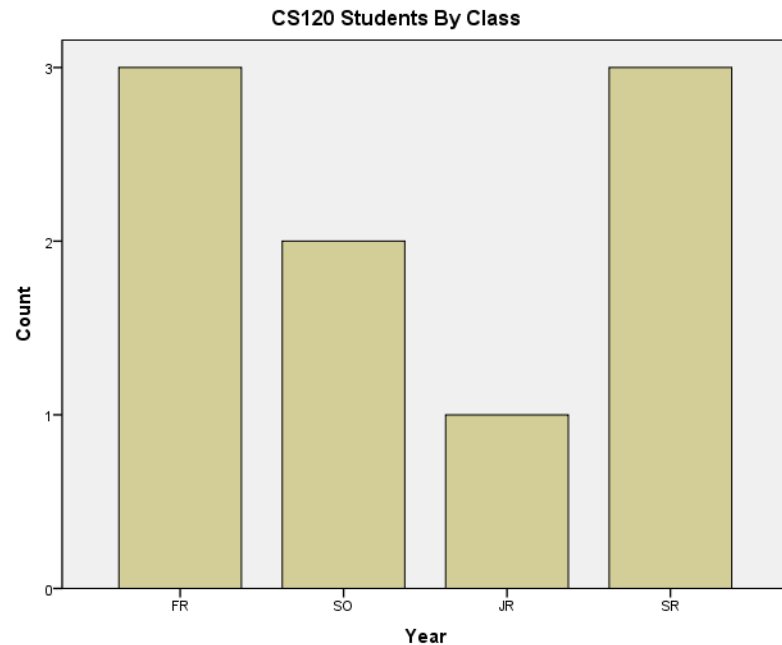
Pie Chart

- 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.

CS120 Students By Class

Year
- FR
- SO
- JR
- SR

33.33%   33.33%

11.11%   22.22%
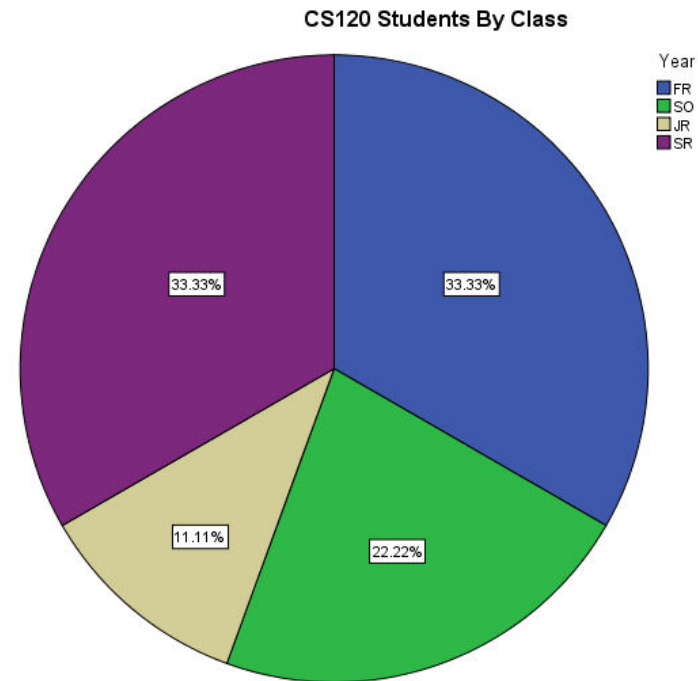
Exercise
Copy CS120.sav from CS 130 Public to your Desktop.

- 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.

CS130 - SPSS & Graphical Display of Statistics

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 Year	Mean	N	Std. Deviation	Median
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