# Graphical Display of Statistics

## Spring 2013
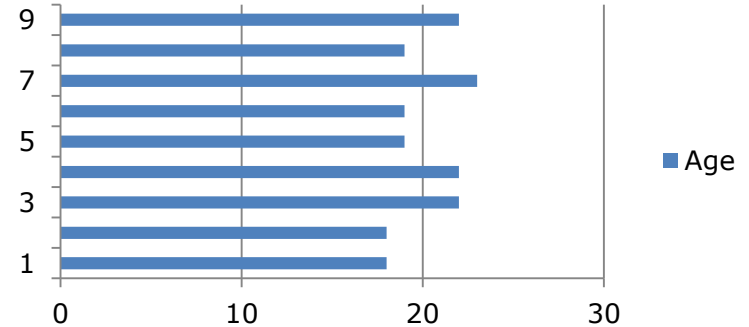
# Common Display of Statistical Info

**Bar:**



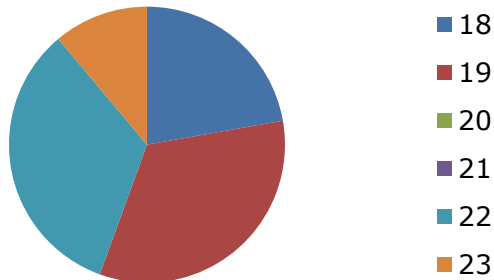**Pie:**

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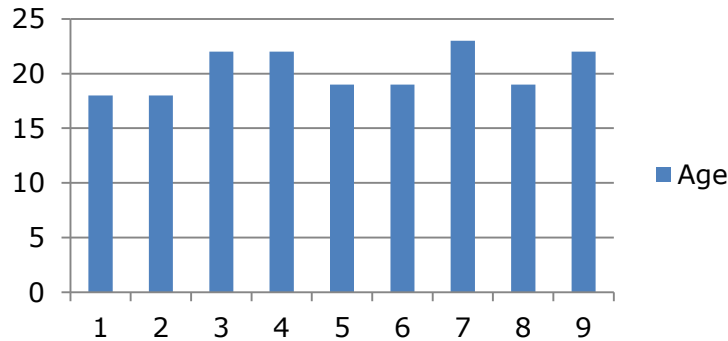
# Sample CS120 Dataset

- 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?

# 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 **Bar Chart** to show the **median age** of students in each Year.

- Create a Word document called **graphs.docx** that has all three graphs in the document properly labeled and looking professional. Let me see the results.

- Enter this data into Excel and build the three charts above.

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# 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.
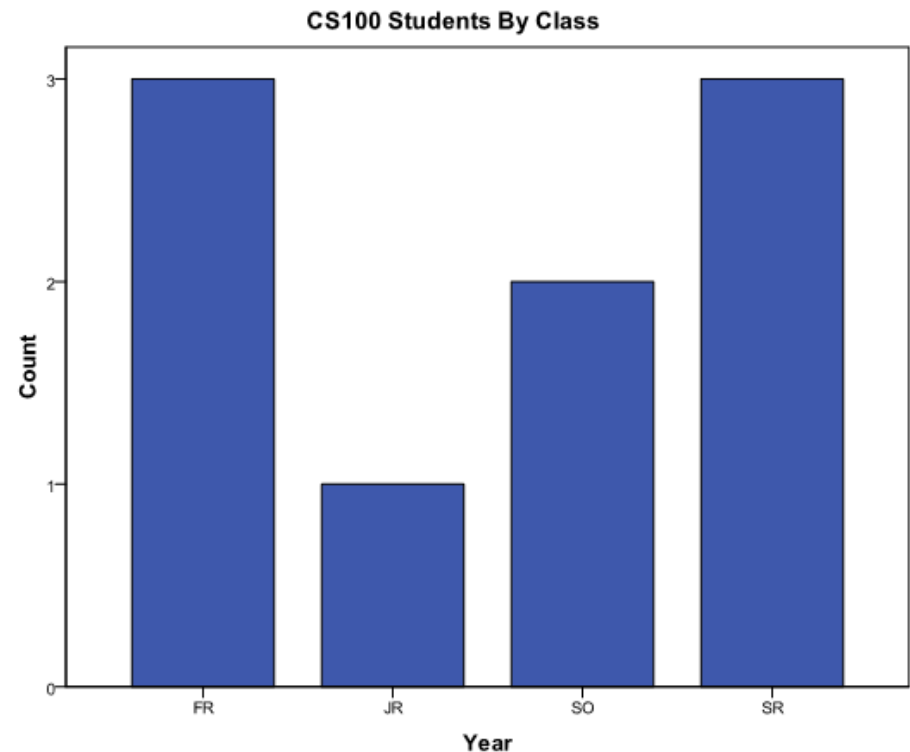
# Pie Chart

- 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.



CS100 Students By Class

Year
FR
SO
JR
SR

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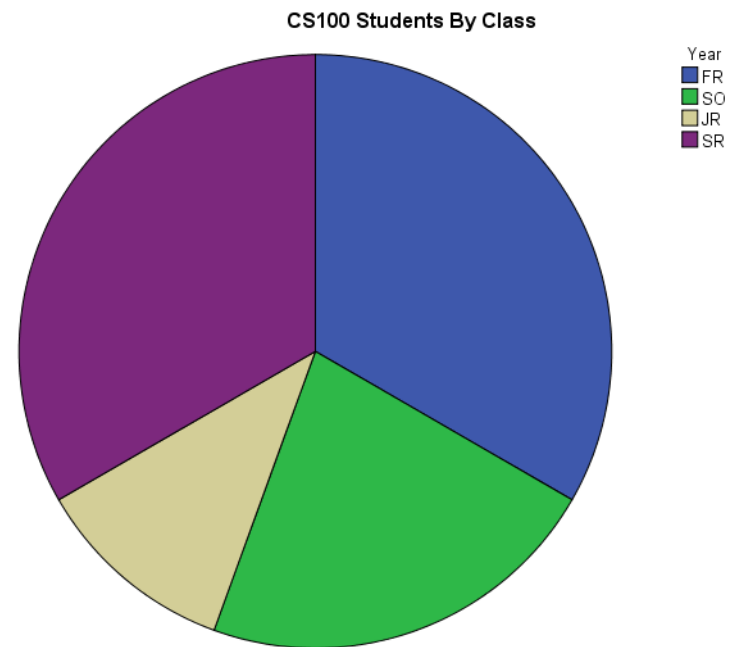
# More SPSS practice

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

Make sure the Year is in the correct order!

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 |

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