A Common Approach to Statistics

Statistic	**A numerical property associated with a sample of a population e.g. percentage of people in a poll who say they will vote "Yes" in a referendum**
Parameter	**A parameter is a numerical property associated with a population e.g. A response to a question in a census.**
Variable	**We measure its value for each person, plant, animal or thing and it varies (variable) from person to person e.g. the height of an individual or their favourite sport**
Population	**The entire collection (people, plants, animals, things) about which information is required e.g. The population of voters in a country is all those eligible to vote in an election in that particular country.**
Sample	**Any subset or smaller group of a population e.g. a representative subset of students from the school A sample should be random and representative of the population.**
Primary Data	**Data collected by user e.g. the compiler of the investigation**
Secondary Data	**Data collected by somebody other than the user e.g. results of investigations published in newspapers `**
Bias	**Inclination or prejudice for or against one person or group, especially in a way considered to be unfair.**

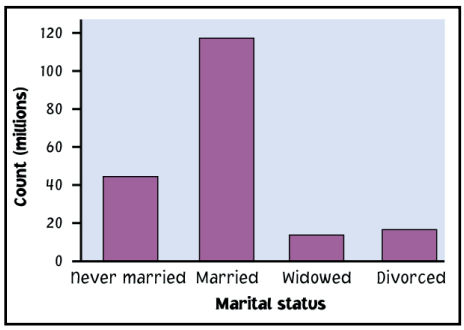
BIAS

Statistics : 7 Questions to Consider when you encounter a statistic in your subject area.

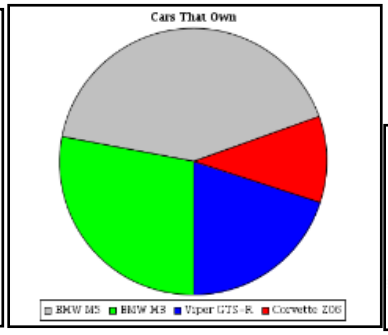
1. What was the purpose of the investigation?
   - ✓ How might this have influenced the investigation?
2. Was the sample representative?
   - ✓ Had everybody in the population an equal likely chance of being represented in the result?
3. Is the data recent?
4. What were the exact questions asked?
5. Could the results have been interpreted differently?
6. Is this the original investigation or a report based on the investigation?
7. Does the report accurately reflect the results of the investigation?
   - ✓ Have only parts of the investigation been reported?

2013 International Year of Statistics
http://www.statistics2013.org/

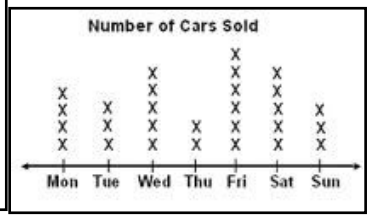
Key Vocabulary ; Visual - Graphical Representations



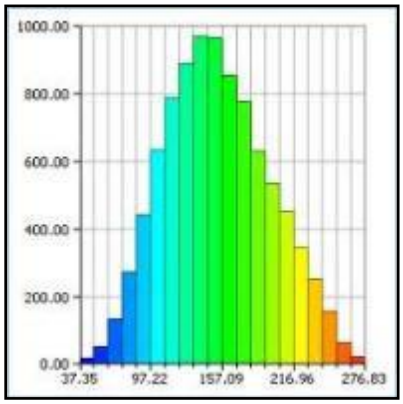
Bar Chart



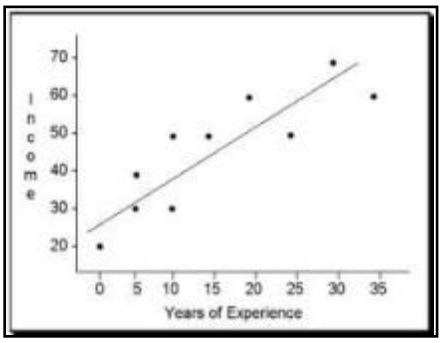
Pie Chart



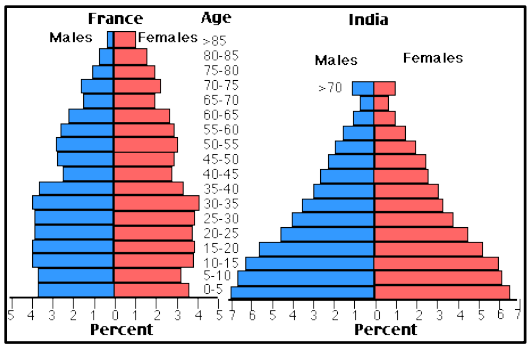
Line Plot



Histogram
(Continuous Data e.g. height, hair length)



Scatter Plot (Relationship)



Population Pyramid

1	9
2	2 5 6 7 8 9
3	0 4 6 7
4	2 3 4 6 8 8 9
5	2 3 5 7 8
6	2

Stem and Leaf Plot Key: 1|9 = 19 cm