

Lecture 1 (Ch. 1)

2 types of statistics:

Descriptive

mean

median

mode

range

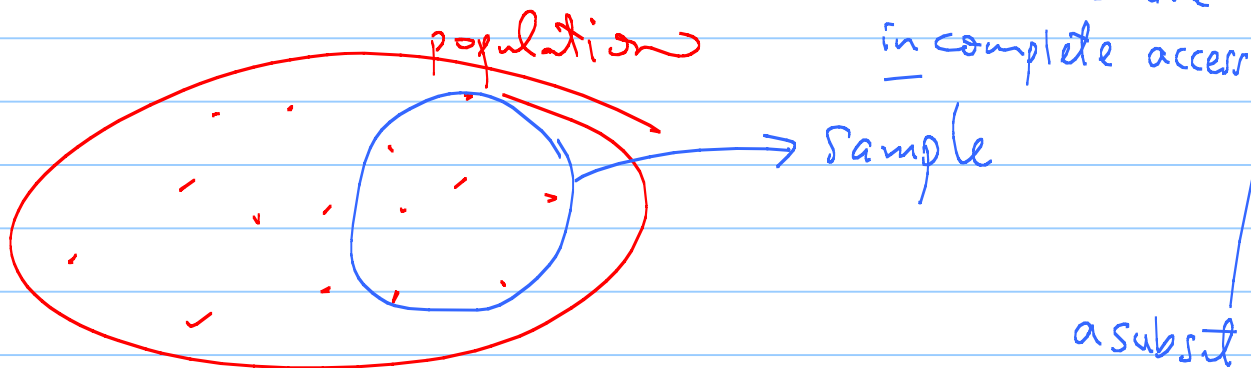
histogram

scatter plot

Inferential

To infer something
about the population
from a single sample.

"A set of objects
to which we have
in complete access"



E.g. From sample we compute sample mean,
sample spread, ...;

What do they say about the pop. mean. etc.?

Data :

Imagine data as columns of things.

Case	x_1	x_2	x_3	x_4	1000 chinese characters
1	1	3.1415	A	0	Discrete eventhough 1000!
2	14	2.7968	B	0	
3	23	⋮	C	1	
⋮	⋮	⋮	⋮	⋮	
n	6	⋮	A	1	Categorical / discrete

Continuous / quantitative

Even though multiplying by 10,000 converts x_2 into something that looks discrete (like x_1), the decimal point implies $x_2 = \text{cont. } (\in \mathbb{R})$. Ultimately, Think about what the variable is!

The diff. between cont. & categ. variables is fuzzy. The distinction is a practical one, because the techniques for the two are diff. There are also other "finer" types of vars. Nominal / ordinal / ...

hw A

Collected data according to the following specifications. Any source is allowed: web, books, papers, your own work, etc.

specifications:

- 1) number of cases: 10 or more
- 2) 2 categorical/discrete variables.
- 3) 2 continuous/quantitative variables.
- 4) The 4 variables must relate to a common problem; not 4 unrelated variables.

print the data in the following format, and turn it in:

	Variable 1	Variable 2	Variable 3	Var. 4
10 or more cases				

Keep the data for future use.