

Ch.1 Introduction to Business Statistics

Statistics

stats
statista

Data
(raw
material)



Chs 1-5
Descriptive

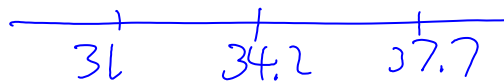
Ch. 6-16
Inferential

Who uses stats?

Political parties: Polls

<http://www.cbc.ca/news/politics/story/2013/06/27/pol-nanos-poll-june-numbers-liberal-lead-undecided-voters.html>

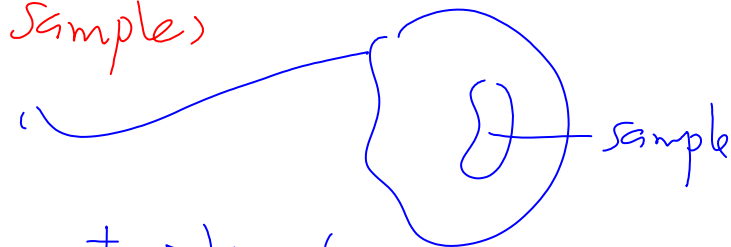
34.2
3.5



Marketing, finance, operations, etc

a) Populations & Samples

Pop'n (universe)



Variable: Characteristics of a pop'n
Ex. GMAT

Variable

Quantitative
Ex. GMAT score

Qualitative
- Gender
- Colour

b) Sampling

b) Sampling

• colour

Ex. "Dewey defeats Truman"

<http://blogs4brownback.files.wordpress.com/2007/12/dewey-defeats-truman.jpg>

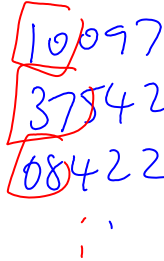
(Simple) random sample. On each selection from the pop'n, every unit remaining on that selection had the same chance of being chosen

Ex. Revenue Canada

100 physicians → take a sample of 10 and audit

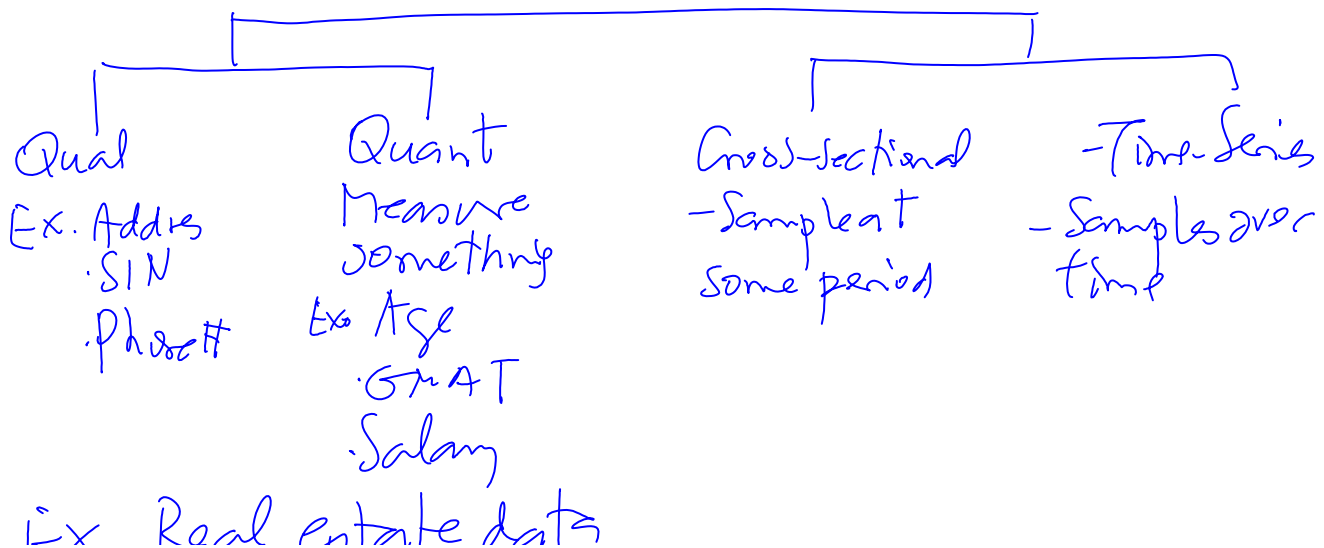
①  Bucket (Silly!)

② Random #s
00, 01, 02, ..., 99



③ MegaStat

(c) Data Types



Ex. Real estate data

<http://profs.degroote.mcmaster.ca/ads/parlar/courses/q600/ChapterComments/documents/RealEstateData.xls>

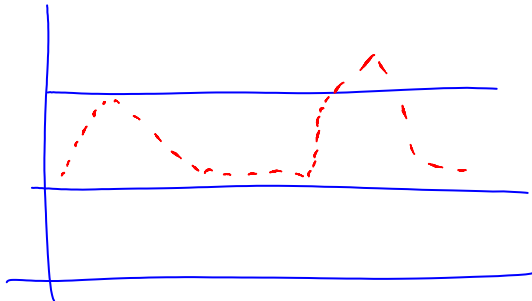
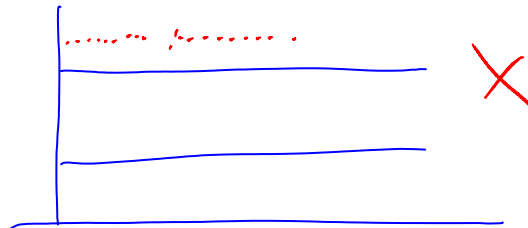
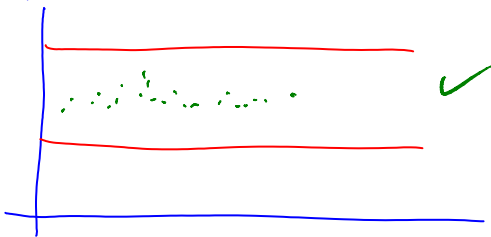
Quant ? $\left\{ \begin{array}{l} \text{Discrete/Cont} \\ \text{Ordinal/Interval/Ratio} \end{array} \right.$
Qualit

d) Sampling a Process

Ex. Coffee Temp case

http://en.wikipedia.org/wiki/McDonald%27s_coffee_case

- In statistical control (not much variation)
- Capability: needs specifications



<http://profs.degroote.mcmaster.ca/ads/parlar/courses/q600/ChapterComments/documents/CoffeeTemp.xls>

