DATA TYPES

Quantitative (numerical)

(1) Discrete (Whole #) 0,1,2,3

-> Counting Process

(2) Continuous (measurement)

-> Can be decimal

Interval	Ratio
Arbitrary reference point -> does Not mean nothing (i.e. 0 Degrees = Freezing Point) -> Only with +/- with meaningful results	0 means absence of characteristic being measured (i.e. # of textbooks bought = 0)

Qualitative (categorical)

(1) Nominal

-> No particular order

(2) Ordinal

-> Logical ordering (ranking)

Nominal	Ordinal	Interval	Ratio
-Color of Eyes -Yes/No Questions -# on a green race car -Gender (male/female) -Zip Codes -Ethnicity -Marital Status -Program/Uni. Name	-Movie ratings/rank -USDS quality of beef -5pt Scale rate health -1 = strongly agree -2 = 2 agree… etc. -Restaurant ratings -Education level	-Temper. (cont.) -IQ (Discrete) -Height of Mountain above sea level (Cont.)	-Length of right foot w/ shoes in cm (cont.) -Shoe size? (discrete) -Height in cm w/o shoes (Cont.) -Salary, income sales (cont.) -Length, distance, volume -Height, weight -Age on last birthday (discrete)

FREQUENCY DISTRIBUTION

(1) 5-10 Classes

Find est. Class Width

Max - Min

5

(2) Pick 2 Nice Numbers

1

2

2.5

5

(3) Use each CW to construct the boundaries

->Rule: Boundaries have to be the multiples of the CW

->Freq. Poly = Midpoint

HISTOGRAM

->touching rectangles

POLYGON

->NOT closed

->Midpoints

STEM AND LEAF PLOT

Stem:

(1) 6-13 Stems

(2) Consecutive 1, 2, 5 times repeat

(3) at least 1 leaf associated w/ first and last stem

(4) Face value/indication

Ex. Investor annual income in $1000

Stem x 10,000

2	
2	7
3	34
3	68
4	23
4	6
5	233
5	569
6	012
6	

Leaf:

(1) Ascending

(2) Evenly spaced

(3) No rounding

stem

Ex.

Min = 0 | 0 6 4 2 . 7 8

Max = 2 | 0 5 9 7 . 3 5

leaf

->Can remove excess rows

->One digit #: 9

S|L

0|9

->Look for Min/Max

-> Bulk of data on left side = skewed right

Bulk of data on right side = skewed left

->Symmetrical

2	157
2	75 8778
3	34575
3	6868
4	24
4	6
5	2
5	5
6	
6	

Skewed to the right

Remove

-> When to use CW = 2.5 and 25