

A state public health department is working through an outbreak of a novel disease, Flu X. They encourage cities and towns across the state to implement a mask mandate in an attempt to understand and slow the spread of the disease. The department task force lacks the time and resources to check every county in the state, and instead assign every county a number and randomly select 10 counties using a random number generator. A survey is issued to every individual who contracts Flu X after the mandate asking if they adhered to the mandate. They totaled up the disease counts 15 days before the mask mandate and 15 days after for each county, calculated the percentage change in cases, and calculated the proportion of the patients that adhered to the mandate.

| County | Cases (Pre-Mandate) | Cases (Post-Mandate) | % Change | Prop. Adhered |
|--------|---------------------|----------------------|----------|---------------|
| 1 | 198 | 157 | -0.207 | 0.873 |
| 2 | 232 | 196 | -0.155 | 0.822 |
| 3 | 136 | 108 | -0.206 | 0.933 |
| 4 | 210 | 170 | -0.190 | 0.944 |
| 5 | 234 | 197 | -0.158 | 0.873 |
| 6 | 913 | 775 | -0.151 | 0.804 |
| 7 | 82 | 101 | +0.232 | 0.882 |
| 8 | 249 | 210 | -0.157 | 0.910 |
| 9 | 120 | 131 | +0.092 | 0.820 |
| 10 | 227 | 193 | -0.150 | 0.802 |

NOMINAL

DISCRETE

CONT. CONT.

QUANT

QUAL

NUMERIC

CATEGORICAL

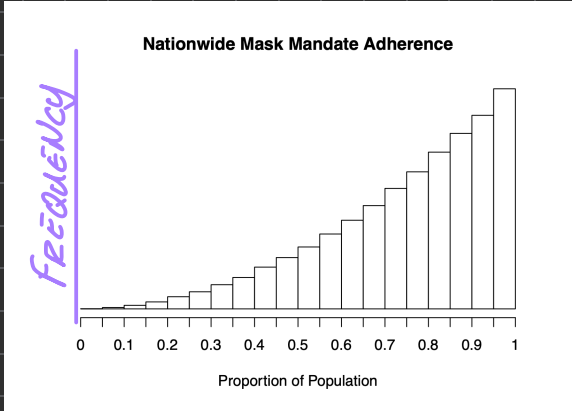
DISCRETE (0,1,2,...)

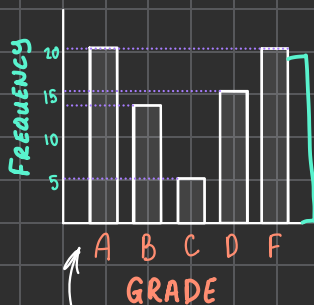
ORDINAL - NATURAL ORDER

CONTINUOUS [0,∞)
(-∞,∞)

NOMINAL - NO NAT. ORDER

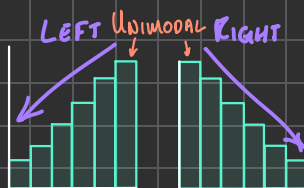
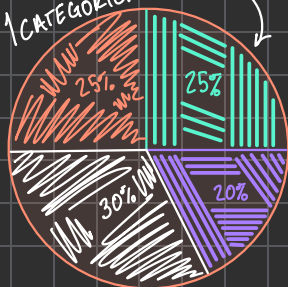
COUNT
DENSITY





- got
- 4/22

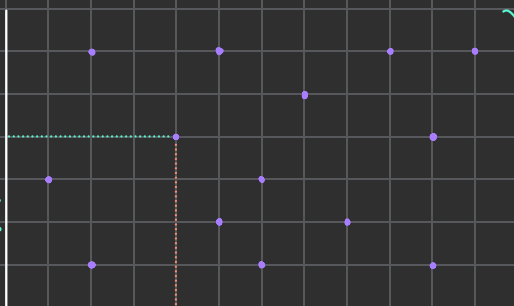
CATEGORICAL VARIABLE



BIMODAL

1 NUMERIC VARIABLE

ATTENDANCE



2 NUMERIC VARIABLES

WHAT SHAPE IS THIS DATA?

| | |
|--------|----|
| MEAN | 5 |
| MEDIAN | 12 |
| MODE | 3 |
| MAX | 20 |
| MIN | 0 |

EXAM GRADE

WHAT HAPPENS IF WE USE
TIME ON THE X-AXIS?