A Summertime Guide to Descriptive Statistics

What are descriptive statistics?

Characteristics of a set of information

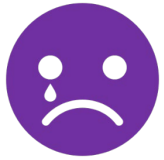
- Example: If we looked at the characteristics of a population
  - LCCMR Members
    - What kinds of information might we want to know?
      - Height
      - Age
      - Favorite ice cream flavor

or

How to talk about members' scores of LCCMR proposals

RANGE

MINIMUM

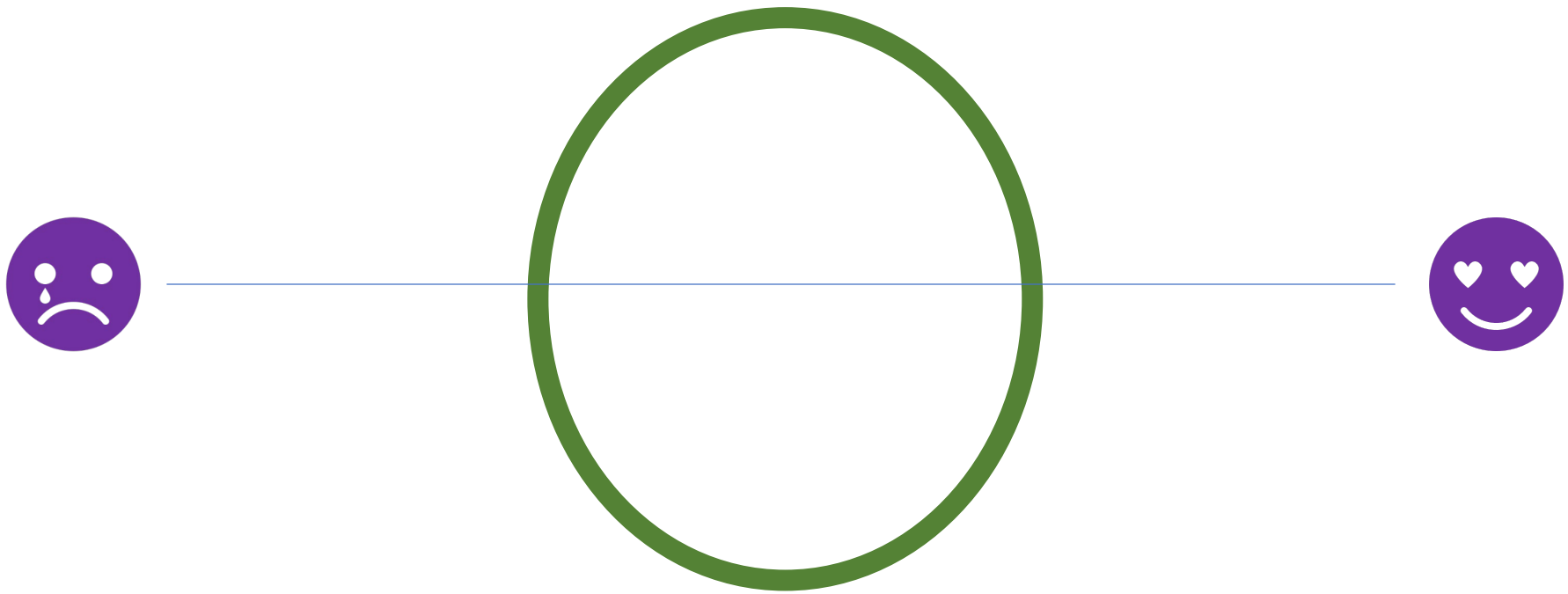


No Points

MAXIMUM

All the points!

CENTRAL TENDENCY—or what makes everyone (mostly) happy



MEAN

- AKA—the average of a set of numbers
- Sensitive to extremes
- The sum of a set of values/the number of a set of values

$$\frac{\text{member scores added together for each project}}{\text{the number LCCMR members}}$$

MEAN

Using actual scores from a project:

$$\frac{(92+60+100+0+1+80+100+98+0+40+10+81+5+100+0+100+15)}{17}$$

=

52

MEDIAN

- The middle value of a set of numbers
- Less sensitive to extremes (resistant)
- To find the median of member scores, line up all 17 scores by highest to lowest, find the value in the middle spot

MEDIAN

92, 60, 100, 0, 1, 80, 100, 98, 0, 40, 10, 81, 5, 100, 0, 100, 15

100, 100, 100, 100, 98, 92, 81, 80, 60, 40, 15, 10, 5, 1, 0, 0, 0

Median: 60

CENTRAL SUMMARY

- Both mean and median are valid statistical techniques
- Mean is swayed by extremes
- Median is more resistant to extremes

LCCMR SCORES DATA TRENDS

- Lots of variation in the scores
  - Nearly every project had a minimum of 0 or 1 and a maximum of 100
- There was a lot of variation within each individual members' scores
- Lots of different interests and ideas for caring for Minnesota's environment and natural resources