Unit 2 Discussion Guidance – Peer Reply #1

Peer Reply 1: Who Has More Variation?

Review a classmate's thread and the descriptive statistics provided.

1. Calculate and share the coefficient of variation for your data and for your classmate's data.
2. Compare the variation between the datasets
3. Discuss which variable has the most variation and why you believe that to be the case.

These responses are meant to be a guide on how to address the peer reply #1 post and do not include all possible responses.

I will compare my TMAX variable with a classmate's TMIN variable that they already shared in their main post:

BOULDER 14 W, CO US MAX Temp	
Mean	46.9333
Standard Error	2.0561
Median	47
Mode	52
Standard Deviation	11.2616
Sample Variance	126.8230
Kurtosis	-0.7302
Skewness	-0.3088
Range	44
Minimum	22
Maximum	66
Sum	1408
Count	30

BOULDER 14 W, CO US MIN Temp	
Mean	24.5
Standard Error	1.1634
Median	27
Mode	27
Standard Deviation	6.3721
Sample Variance	40.6034
Kurtosis	-0.7098
Skewness	-0.5916
Range	24
Minimum	11
Maximum	35
Sum	735
Count	30

To determine which variable has more variation, you can compare the coefficient of variations using the formula:

$$CV = \left(\frac{s}{\bar{x}}\right)100\%$$

The variation in my TMAX variable is
CV = 11.2616/46.9333 * 100% = 24%

The variation in my classmates' TMIN variable is
CV = 6.3721/24.5 * 100% = 26%

There is more variation in my classmate's TMIN variable! It appears that the minimum temperature in Boulder, CO varies more than the maximum temperature in Boulder, CO for Apr12th – May 12th, 2018!