

Spread metrics	37-year r	Robust and resistant	Why not robust and resistant
Interquartile range (IQR) = $q_{0.75} - q_{0.25}$	0.214	Yes	–
$\frac{\text{IQR}}{\text{median}}$	0.845	Yes	–
$\frac{\text{IQR}}{\text{trimean}}$	0.834	Yes	–
Median deviation from median = $\text{median}[x - \text{median}(x)]$	–0.048	Yes	–
Median absolute deviation (MAD) = $\text{median} x - \text{median}(x) $	0.196	Yes	–
Robust coefficient of variation (RCoV) = $\frac{\text{MAD}}{\text{median}}$	0.856	Yes	–
Exponential RCoV = $\frac{\ln(\text{MAD})}{\ln(\text{median})}$	0.595	Yes	–
$\frac{\text{MAD}}{\text{trimean}}$	0.848	Yes	–
Standard deviation (σ) = $\sqrt{\frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2}$	0.184	No	Reason I
Variance (σ^2) = $\frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2$	0.136	No	Reason I
Coefficient of variation (CoV) = $\frac{\sigma}{\text{mean}}$	0.704	No	Reason I
Exponential CoV = $\frac{\ln(\sigma)}{\ln(\text{mean})}$	0.466	No	Reason I
Mean deviation from mean = $\overline{(x - \bar{x})}$	–0.043	No	Reason I
Mean absolute deviation = $\overline{ x - \bar{x} }$	0.187	No	Reason I
Trimmed standard deviation (σ) = standard deviation without values below Q_{10} and	0.206	No	Reason I
Q_{90} , or = $\sqrt{\frac{1}{n-2k} \sum_{i=k+1}^{n-k} (x_{(i)} - \bar{x}_a)^2}$, k as the nearest integer to $a \times n$			
$\frac{\text{Trimmed } \sigma}{\bar{x}}$	0.775	No	Reason I
Range	0.177	No	Reason II
$\frac{\text{Range}}{\bar{x}}$	0.609	No	Reason I
Seasonality index = $\frac{\sum x - \bar{x} }{n \times \bar{x}}$ (modified from Walsh and Lawler, 1981)	0.744	No	Reason I
$\frac{\sigma}{\text{median}}$	0.743	Partially	Reason III
$\frac{\sigma}{\text{trimean}}$	0.728	Partially	Reason III
$\frac{\text{IQR}}{\bar{x}}$	0.818	Partially	Reason IV
$\frac{\text{MAD}}{\bar{x}}$	0.834	Partially	Reason IV
$\frac{\text{Trimmed } \sigma}{\text{median}}$	0.806	Partially	Reason III
$\frac{\text{Trimmed } \sigma}{\text{trimean}}$	0.794	Partially	Reason III
$\frac{\text{Range}}{\text{median}}$	0.650	Partially	Reason V
$\frac{\text{Range}}{\text{trimean}}$	0.635	Partially	Reason V