

Other diagnostics	Description	37-year r	Robust and resistant	Why not robust and resistant
Kurtosis (tailedness) = $\left(\frac{\frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^4}{\left(\frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2 \right)^2} \right) - 3$	Positive value means the distribution is tail heavy with more and more extreme outliers compared to Gaussian; vice versa	0.936	No	Reason I
Skewness = $\frac{\frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^3}{\left(\frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2 \right)^{\frac{3}{2}}}$	Positive value means long right tails, or right skewed; vice versa	0.943	No	Reason I
Yule–Kendall Index (YKI) = $\frac{q_{0.25} - 2 \times q_{0.5} + q_{0.75}}{\text{IQR}}$	Positive value means long right tails, or right skewed; vice versa	0.778	Yes	–
Weibull scale parameter	Determine the peak and the stretch	0.379	No	Reason II
Weibull shape parameter	Determine the average, the symmetry, and the shape	0.721	No	Reason II
Autocorrelation	Pearson's r with its own past and future values	Not applicable	Not applicable	–