EXAMINE VARIABLES=right\_skewed\_example left\_skewed\_example heavy\_tailed\_example light\_tailed\_example bimodal\_example normal\_example /PLOT NONE /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.

**Explore**

|  |  |  |
| --- | --- | --- |
| **Notes** |  |  |
| Output Created |  | 24-SEP-2023 15:44:02 |
| Comments |  |  |
| Input | Data | E:\git\classes\biostats-1\data\data-06-non-normal-examples.sav |
| Active Dataset | DataSet1 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 80 |
| Missing Value Handling | Definition of Missing | User-defined missing values for dependent variables are treated as missing. |
| Cases Used | Statistics are based on cases with no missing values for any dependent variable or factor used. |
| Syntax |  | EXAMINE VARIABLES=right\_skewed\_example left\_skewed\_example heavy\_tailed\_example light\_tailed\_example bimodal\_example normal\_example /PLOT NONE /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL. |
| Resources | Processor Time | 00:00:00.02 |
| Elapsed Time | 00:00:00.00 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Case Processing Summary** |  |  |  |  |  |  |
|  | Cases |  |  |  |  |  |
| Valid |  | Missing |  | Total |  |
| N | Percent | N | Percent | N | Percent |
| right\_skewed\_example | 80 | 100.0% | 0 | 0.0% | 80 | 100.0% |
| left\_skewed\_example | 80 | 100.0% | 0 | 0.0% | 80 | 100.0% |
| heavy\_tailed\_example | 80 | 100.0% | 0 | 0.0% | 80 | 100.0% |
| light\_tailed\_example | 80 | 100.0% | 0 | 0.0% | 80 | 100.0% |
| bimodal\_example | 80 | 100.0% | 0 | 0.0% | 80 | 100.0% |
| normal\_example | 80 | 100.0% | 0 | 0.0% | 80 | 100.0% |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Descriptives** |  |  |  |  |
|  |  |  | Statistic | Std. Error |
| right\_skewed\_example | Mean |  | 50.00 | 1.677 |
| 95% Confidence Interval for Mean | Lower Bound | 46.66 |  |
| Upper Bound | 53.34 |  |
| 5% Trimmed Mean |  | 48.98 |  |
| Median |  | 46.70 |  |
| Variance |  | 225.000 |  |
| Std. Deviation |  | 15.000 |  |
| Minimum |  | 31 |  |
| Maximum |  | 111 |  |
| Range |  | 80 |  |
| Interquartile Range |  | 22 |  |
| Skewness |  | 1.161 | .269 |
| Kurtosis |  | 2.134 | .532 |
| left\_skewed\_example | Mean |  | 50.00 | 1.677 |
| 95% Confidence Interval for Mean | Lower Bound | 46.66 |  |
| Upper Bound | 53.34 |  |
| 5% Trimmed Mean |  | 51.65 |  |
| Median |  | 55.81 |  |
| Variance |  | 225.000 |  |
| Std. Deviation |  | 15.000 |  |
| Minimum |  | 2 |  |
| Maximum |  | 65 |  |
| Range |  | 63 |  |
| Interquartile Range |  | 18 |  |
| Skewness |  | -1.626 | .269 |
| Kurtosis |  | 2.274 | .532 |
| heavy\_tailed\_example | Mean |  | 50.00 | 1.677 |
| 95% Confidence Interval for Mean | Lower Bound | 46.66 |  |
| Upper Bound | 53.34 |  |
| 5% Trimmed Mean |  | 50.03 |  |
| Median |  | 49.20 |  |
| Variance |  | 225.000 |  |
| Std. Deviation |  | 15.000 |  |
| Minimum |  | 14 |  |
| Maximum |  | 95 |  |
| Range |  | 81 |  |
| Interquartile Range |  | 17 |  |
| Skewness |  | .109 | .269 |
| Kurtosis |  | .391 | .532 |
| light\_tailed\_example | Mean |  | 50.00 | 1.677 |
| 95% Confidence Interval for Mean | Lower Bound | 46.66 |  |
| Upper Bound | 53.34 |  |
| 5% Trimmed Mean |  | 49.73 |  |
| Median |  | 49.14 |  |
| Variance |  | 225.000 |  |
| Std. Deviation |  | 15.000 |  |
| Minimum |  | 23 |  |
| Maximum |  | 79 |  |
| Range |  | 56 |  |
| Interquartile Range |  | 26 |  |
| Skewness |  | .179 | .269 |
| Kurtosis |  | -1.078 | .532 |
| bimodal\_example | Mean |  | 50.00 | 1.677 |
| 95% Confidence Interval for Mean | Lower Bound | 46.66 |  |
| Upper Bound | 53.34 |  |
| 5% Trimmed Mean |  | 50.18 |  |
| Median |  | 55.85 |  |
| Variance |  | 225.000 |  |
| Std. Deviation |  | 15.000 |  |
| Minimum |  | 25 |  |
| Maximum |  | 72 |  |
| Range |  | 47 |  |
| Interquartile Range |  | 27 |  |
| Skewness |  | -.334 | .269 |
| Kurtosis |  | -1.442 | .532 |
| normal\_example | Mean |  | 50.00 | 1.677 |
| 95% Confidence Interval for Mean | Lower Bound | 46.66 |  |
| Upper Bound | 53.34 |  |
| 5% Trimmed Mean |  | 50.07 |  |
| Median |  | 50.54 |  |
| Variance |  | 225.000 |  |
| Std. Deviation |  | 15.000 |  |
| Minimum |  | 12 |  |
| Maximum |  | 84 |  |
| Range |  | 73 |  |
| Interquartile Range |  | 21 |  |
| Skewness |  | -.049 | .269 |
| Kurtosis |  | .118 | .532 |