Simple visual inspection:

The histograms of Math and English Proficiency are similar. They both are right-skewed. The histogram of Economic Need English is left-skewed and is almost a mirror image of the English Proficiency histogram.

Quantitative calculations:

The skewness of Math’s Proficiency’s histogram is 0.7351267.

The skewness of English Proficiency’s histogram is 1.038973.

The skewness of Economic.Need.Index’s histogram is -0.972113.

To evaluated if these g1 (measures of skewness) are far enough away from zero for the data sets to be considered skewed to the right or left, they were compared with 2= 0.1383, for n= 1254.

0.7351267>0.1383, confirms that Math’s Proficiency’s histogram is right-skewed.

1.038973>0.1383, confirms that English’s Proficiency’s histogram is right-skewed.

|-0.972113|=0.972113>0.1383, showing it is left-skewed (because of the negative sign of the skewness value).

|  |  |
| --- | --- |
| Code for the quantitative calculations:   |  | | --- | | > skewness(school$ Average.Grade.4.English.Proficiency)  [1] 1.038973  > skewness(school$ Average.Grade.4.Math.Proficiency)  [1] 0.7351267  > skewness(school$ Economic.Need.Index)  [1] -0.972113 | |