Mathematical Statistics II
Statistical Computing Activity: Module 4

One purpose of these Statistical Computing Activities (SCAs) is to give you a chance to explore statistics using the computer. Another purpose is to give you more skills in thinking about the randomness that is life.

In this chapter, we examined hypothesis testing for the usual parameters (μ, π, and σ^2) when the data are from a Normal distribution. In this SCA, we will be looking at the skew and testing hypotheses about it.

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This SCA is very open. You are given a problem and asked to create an appropriate statistical test.

Goal: Create a test for skewness.

Once you have a test for skew, determine if the GSP per capita in 2000 is skewed (the example).

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This will be graded on explanation and depth of thought. It will be easy to get a C. It will be tough to get an A. If you just present something already created, expect a low grade. If what you measure is not skew, expect an even lower grade.

In this assignment, make sure you cite and reference your sources of information... *all* sources of information. The citation style is "parenthetical" (Forsberg 2018). The reference style is APA, APSA, Chicago, or MLA. If you have another style you prefer, you need to have it approved by the professor.

Your submission needs these parts (as first-level headings):

1) Introduction,
2) The Many Definitions of Skewness (ending with your definition),
3) Testing for Skewness (including your test statistic, your assumptions, and its distribution),
4) Application (example of how to use your test; GSP per Capita in 2000),
5) Conclusion, and
6) Referece List.