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A computational approach to investigate the properties of an estimators.

J. Comput. Math. Sci. Teach. 32, No. 4, 381-393 (2013).

Summary: Teaching undergraduates the basic properties of an estimator can be challenging. Most definitions are easy enough to comprehend, but difficulties often lie in gaining an intuitive feel for these properties and understanding why one property might be more desirable than another. Student learning may be enhanced using visualization which often appeal strongly to students' intuitions. While such approaches are not generally emphasized in a first course in statistics, we feel that simulation-based visualization can be extremely insightful for students and should be included as part of any basic course in statistics. Informal student feedback suggests that students enjoy this approach and gain an improved understanding of the material presented.

Classification: K45 K75 U75

Keywords: estimators; statistics; simulation; simulation-based visualization; bias