Abstract

First described by Yule (1903) and later popularized by its namesake, Simpson (1951), Simpson’s Paradox is a phenomenon where one entity can have higher mean values across all (or most) subpopulations yet the other entity has a higher overall mean for the combined data. This phenomenon appears regularly in educational data, including comparisons of state achievement on standardized tests. The talk will present a new index that neutralizes Simpson’s Paradox when reporting test scores. The paper begins with a review of the Paradox using examples from the National Assessment of Education Progress (NAEP). The new procedure, called the Relative Performance Index (RPI), is then presented and applied. We show the effect of the RPI relative to a prior suggested adjustment (Tukey et al, 1973; Wainer, 1986) and a regression approach using a host of covariates.

If you have questions about this seminar, contact Professor Mark Davison, mld@umn.edu.

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