Statistics Seminar Series

Improving Confidence Intervals for Proportions, Differences of Proportions, and Odds Ratios.

Alan Agresti
Department of Statistics
University of Florida

Thursday, December 5, 2002, 4:00-5:00pm
Mathematics and Computer Science (MCS) Building, Room 149
111 Cummington Street, Boston

Tea and Cookies at 3:30pm in MCS 153

Abstract: 'Exact,' small-sample methods for categorical data are exact in term of using probability distributions that do not depend on unknown parameters. However, they are conservative inferentially, having actual error probabilities for tests and confidence intervals that are bounded above by the nominal level. We examine the conservatism for interval estimation and suggest ways of reducing it, illustrating for the binomial proportion, the difference between two proportions, and the odds ratio. We also summarize simple ways of adjusting standard large-sample confidence intervals to improve dramatically their small-sample performance.

For directions and maps, please see *http://math.bu.edu/research/statistics/statseminar.html*. For other information, please contact Eric Kolaczyk (*kolaczyk@math.bu.edu*) or the main department office at (617)353-2560.