The University of Chicago

Department of Statistics

Ph.D. Seminar

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Department of Statistics

The University of Chicago

"Likelihood Methods for Potential Outcomes"

MONDAY, May 15, 2006 at 12:00 PM
110 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

Potential outcome models, also called Rubin causal models, are one way of operationalizing the abstract notion of causality. Counterfactual effects are comparisons of marginal distributions of potential outcomes. Most of the attention given to counterfactual effects has been on moment-based estimators. We develop likelihood-based estimation techniques for counterfactual effects. Likelihood-based methods allow us to estimate a variety of counterfactual effects and to potentially improve efficiency. We consider two scenarios: observational studies with a complete set of confounders and randomized experiments where not all subjects comply with their assigned treatment. For each scenario we present our likelihood development along side more traditional moment-based estimation procedures.

Information about building access for persons with disabilities may be obtained in advance by calling the department office at (773) 702-8333.