Nonignorable nonresponse presents a great challenge in statistical analysis since the nonresponse mechanism/propensity depends on missing data and it is often not identifiable without any further assumption or information about the population distribution and/or nonresponse propensity. In this presentation we introduce some recent developments in dealing with nonignorable nonresponse, including the use of nonresponse instrument in identifying the unknown population, the semiparametric pseudo likelihood estimation, and the parametric or semiparametric propensity approach. We also show some preliminary results on the selection of a parametric model or the determination of nonresponse instrumental variables, which is difficult and previously thought to be impossible because of the nonignorable nonresponse.

Title: Recent Advances in Handling Nonignorable Nonresponse

Speaker: Professor Jun Shao
Department of Statistics
University of Wisconsin-Madison

Time & Place:
Wednesday, September 30, 2015, 4:00-5:00pm
Room 133 SMI (Cookies and Coffee @ 3:30 in Rm 1210 MSC)

Abstract:

Nonignorable nonresponse presents a great challenge in statistical analysis since the nonresponse mechanism/propensity depends on missing data and it is often not identifiable without any further assumption or information about the population distribution and/or nonresponse propensity. In this presentation we introduce some recent developments in dealing with nonignorable nonresponse, including the use of nonresponse instrument in identifying the unknown population, the semiparametric pseudo likelihood estimation, and the parametric or semiparametric propensity approach. We also show some preliminary results on the selection of a parametric model or the determination of nonresponse instrumental variables, which is difficult and previously thought to be impossible because of the nonignorable nonresponse.