The University of Chicago
Department of Statistics
Master's Seminar

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"Item Non-Response in the Project on Human Development in Chicago Neighborhoods, Consequences for Domestic Violence and Child Behavior"

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ABSTRACT

Under-reporting is a chronic and constant concern in probability sample studies of domestic violence. Under-reporting often takes the form of item non-response and can produce bias in estimates of prevalence and in models investigating relationships between domestic violence and other problems. This paper uses E.M. and data augmentation implemented via the general location model (Schafer, 1997) to do multiple imputation on the Project on Human Development in Chicago Neighborhoods (P.H.D.C.N.) data. The algorithm used 6 measures of violence and 39 relevant predictors. Comparisons using list-wise deletion and augmented data were then made with respect to two problems. The first analysis examined differences in prevalence estimates of intimate partner violence. When data augmentation was used, the prevalence estimate for severe male violence in the data rose from 10.2% to 12.3%. The second analysis compared list-wise deletion and data augmentation fixes with respect to differences in estimates from fixed effects analyses modeling the effect of exposure to domestic violence on internalizing and externalizing child behavior problems. When augmented data were used, measures of intimate partner violence ceased to have an effect on externalizing behavior, although measures of child abuse continued to be important. Using fixed effects, intimate partner violence did not have an important relationship with internalizing behavior in either the list-wise deletion or augmented data case. Child abuse, however, was an important predictor in both cases.

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