**Effects of Unit Nonresponse on Estimating the Population Mean**

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Nonresponse occurs when a sampled subject fails to complete a survey. There are two types of nonresponse: item nonresponse, if the subject does not respond to certain survey questions, or unit nonresponse, if the subject does not respond to the entire survey. Unit nonresponse reduces sample size and study power. More importantly, if there are significant differences between respondents and nonrespondents, it can cause population estimates to be biased. In this study, we focus on unit nonresponse and evaluate the bias and variance of the estimator of the population mean under different missingness mechanisms. More specifically, we examine how the bias and variance change when the response propensity varies based on its dependence on the explanatory variable, outcome variable, or survey design. For that purpose, we consider three types of non-response mechanisms: Missing Completely at Random (MCAR), Missing at Random (MAR), and Missing Not at Random (MNAR) and search the effects of unit nonresponse on estimating the population mean through extensive simulations.