



THE UNIVERSITY OF CHICAGO

Department of Statistics

MASTER'S THESIS PRESENTATION

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Nonresponse Detection and Multiple Regression Analysis of Hacker
News Survey Data

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ZOOM Meeting

ABSTRACT

Survey response rate is one of the most important measures of the quality of a survey, which is an effective method uncovering the public opinion on topics of interest. Former researches have studied how to improve the survey response rate before, during, and after the survey conducting period. However, there is a lack of application of these methods, especially those for post-survey response adjustment. This paper aims to build on previous studies and perform empirical data analysis on the Hacker News Survey data. Steps include using benchmarking analysis to detect the existence of nonresponse bias, using matching to find the presence of nonrepresentativeness, applying weighting methods to adjust for the original data set, and finally, we take a step further by investigating which variables are useful predictors of the dependent variable. In particular, we find job category (e.g. Software Engineering, Technician, etc.) and location should be taken into account when considering annual base salary, while work experience years may not have statistically significant contribution to determining annual base salary.