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HELEN WAY KLINGLER
COLLEGE OF ARTS AND SCIENCES

Department of Mathematics, Statistics and Computer Science

COLLOQUIUM ANNOUNCEMENT

Modeling Questionnaire Data When The Responses Are Counts

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3:30 PM, Thursday, November 9, 2017

Cudahy Hall, Room 401

Abstract

Questionnaires that include items eliciting count responses are becoming increasingly common in behavioral and health outcomes research. Often, these surveys are designed to assess the severity of symptoms, asking respondents to recall the frequency of various thoughts or behaviors over a specified period of time. For example, a survey measuring alcohol dependence may ask the respondent to report the number of drinks he or she consumes during a typical week; a survey assessing depression may ask the respondent to report how many days he or she felt sad during the previous month. While count data provide information that may not be captured when response options are more coarsely categorized, retrospectively-reported count data also pose several statistical challenges, including zero inflation and heaping at preferred digits (e.g., multiples of five). The current research proposes methodological techniques within a latent variable mixture modeling framework to overcome some of these challenges. Data from a selection of health-related questionnaires are used as motivating examples.

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For further information: see <http://www.marquette.edu/mscs/resources-colloquium.shtml>

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CUDAHY HALL, ROOM 342 AT 4:30 P.M.*