ADVANCED REGRESSION ANALYSIS
WORKSHOP 23-25/6/2019

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DESCRIPTION:

This workshop deals with advanced applied linear regression and involves hands on-analysis. The goal is to provide an accessible and practical coverage of regression analysis focusing on problems in the area of management and organizational behavior, while also addressing use of relevant software tools.

The workshop is intended for graduate students and junior faculty in the social sciences. Students should have had (at least) a one-semester introduction to statistics and one semester introduction to linear regression.

COMPUTER USAGE:

The emphasis on data analysis requires students to make frequent use of a computer during the workshop; therefore, 2-3 hours during each meeting will be held in a computer lab. Lecture demonstrations and handouts will be based on using SPSS and SAS. Although students may use any software for completing the assignments, most will find these to be convenient tools.

REQUIREMENTS AND EVALUATION:

1. Final project (take-home exam) 75%
2. Participation 25%
TOPICS COVERED:

1. REVISION OF BASIC STATISTICAL CONCEPTS

2. MULTIPLE LINEAR REGRESSION:
   - Linear regression
   - Binary predictor in linear regression compared to t-test
   - Predictor with multiple categories in linear regression
   - Linear regression with multiple predictors

3. INTRODUCTION TO SPSS

RECOMMENDED READING:


4. MODERATION:
   - Single moderator (two-way interaction);
     - Moderator with binary IV
     - Moderator with continuous IV
     - Simple slopes analysis with single moderator

RECOMMENDED READING:


5. **MEDIATION ANALYSIS:**
   - Causal steps approach
   - Indirect effect approach
   - Mediation with one mediator
   - Mediation with multiple mediators
   - Conditional Indirect effects

RECOMMENDED READING:


6. **LOGISTIC REGRESSION**
   - The model
   - Inference based on the model
   - Likelihood and Deviance

**RECOMMENDED READING:**


7. **AGREEMENT INDICES:**
   - Intra Class Correlations
   - RWG and AD

**RECOMMENDED READING:**


