Quantitative Data Analysis II: Multivariate Regression

Regression, the most widely used statistical technique, estimates relationships between independent (predictor or explanatory) variables and dependent (response or outcome) variables. Apart from using a multivariate framework, this course will introduce the use of elaboration models for unveiling the nature of the relationship between independent and dependent variables. The course will combine lectures, discussion and hands-on practice in SPSS.

Course Outline

- Foundations and simple linear regression (e.g. correlation and covariance)
- Multiple linear regression with continuous outcomes (e.g. Ordinary Least Squares regression)
- Multiple linear regression with categorical outcomes (e.g. Binary logistic regression and Multinomial logistic regression)
- Transformation of dependent variables that are not normally distributed
- The thinking behind ‘control’ variables and the link to elaboration models
- Elaboration models – e.g., discussion of a) spurious relationship, b) intervening relationship, c) partial explanation, d) suppression effect, and e) interaction effect
- Multiple imputation – for dealing with missing data

Who Should Attend

This course is designed for professionals, undergraduates and postgraduate students, data analysts and quantitative researchers working in applied environments.

Prerequisites

Participants should have some prior experience with SPSS.

Enquiries

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For details on schedule, course fee & registration, visit CFPR website.

Faculty Member

Dr. Vincent Chua is an Assistant Professor in the Department of Sociology at the National University of Singapore (NUS) and a steering committee member of the Centre for Family and Population Research (CFPR). He got his PhD from the University of Toronto in Sociology. His research areas are in social networks and social capital, neighbourhood life, education, and ethnic stratification. His work has appeared in publications such as Social Networks, Social Science Research, Sociological Perspectives, Current Sociology, and International Studies in Sociology of Education, Comparative Sociology, Asian Ethnicity, American Behavioral Scientist, and the Sage Handbook of Social Network Analysis. He has taught the graduate level quantitative data analysis course at the Department of Sociology in NUS for several years now. In 2013, he won a teaching award in NUS.